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STREAM CATALOG OF THE WOOD RIVER LAKE SYSTEM BRISTOL BAY, ALASKA

by Richard A. Marriott

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UNITED STATES DEPARTMENT OF THE INTERIOR
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UNITED STATES DEPARTMENT OF THE INTERIOR

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STREAM CATALOG OF THE WOOD RIVER LAKE SYSTEM, BRISTOL BAY, ALASKA

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ABSTRACT

Information on the red salmon runs to all the major spawning tributaries in the Wood River lake system, Bristol Bay, Alaska from 1946 to 1962 is cataloged in this report. The Wood River lake system comprises a chain of four main lakes with their tributary lakes and creeks. The order of presentation is from lower to upper lakes and, within each lake, from the lake outlet around the lake in a clockwise order. A trunk stream or a connecting river is considered with the lake from which it drains. Included are 47 creeks, 11 belonging to Lake Aleknagik, 17 to Lake Nerka plus 3 to Little Togiak Lake which empties into Lake Nerka, 11 to Lake Beverley, 1 to Lake Mikchalk, and 4 to Lake Kulik.

For each creek, there are three main entries. First, the catalog number, name, location, and physical description (which includes creek dimensions, potential spawning areas, bottom quality, flow, air and water temperatures) are given. On the following page, some cardinal points about the red salmon runs, including the average percentage of the total escapement, escapement range, time and peak of spawning, and distribution of the spawners, are given. Finally, a summary of surveys lists chronologically the estimated numbers of red salmon.

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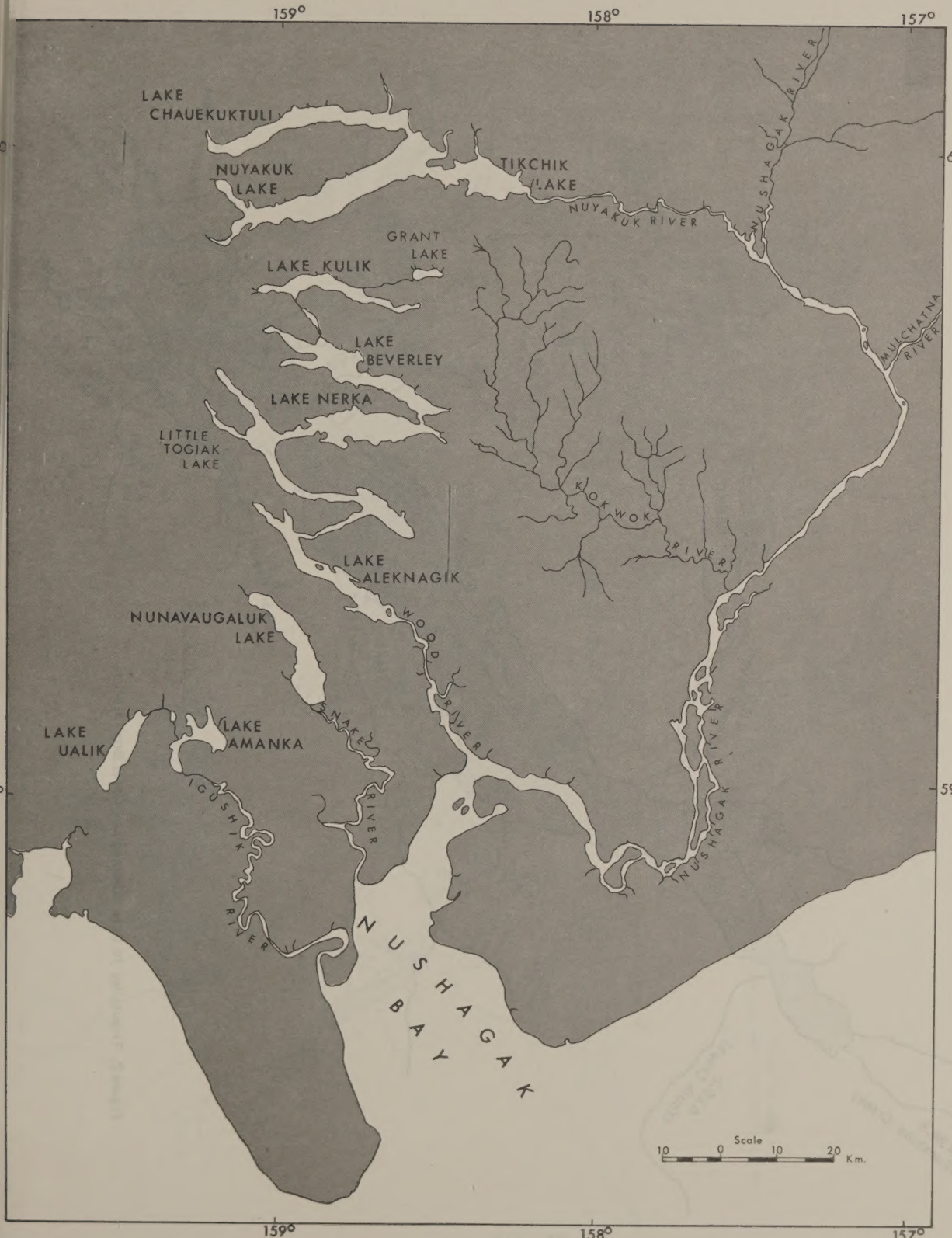

Figure 1.--The Wood River Lake system and adjoining river systems in the Nushagak district, Alaska.

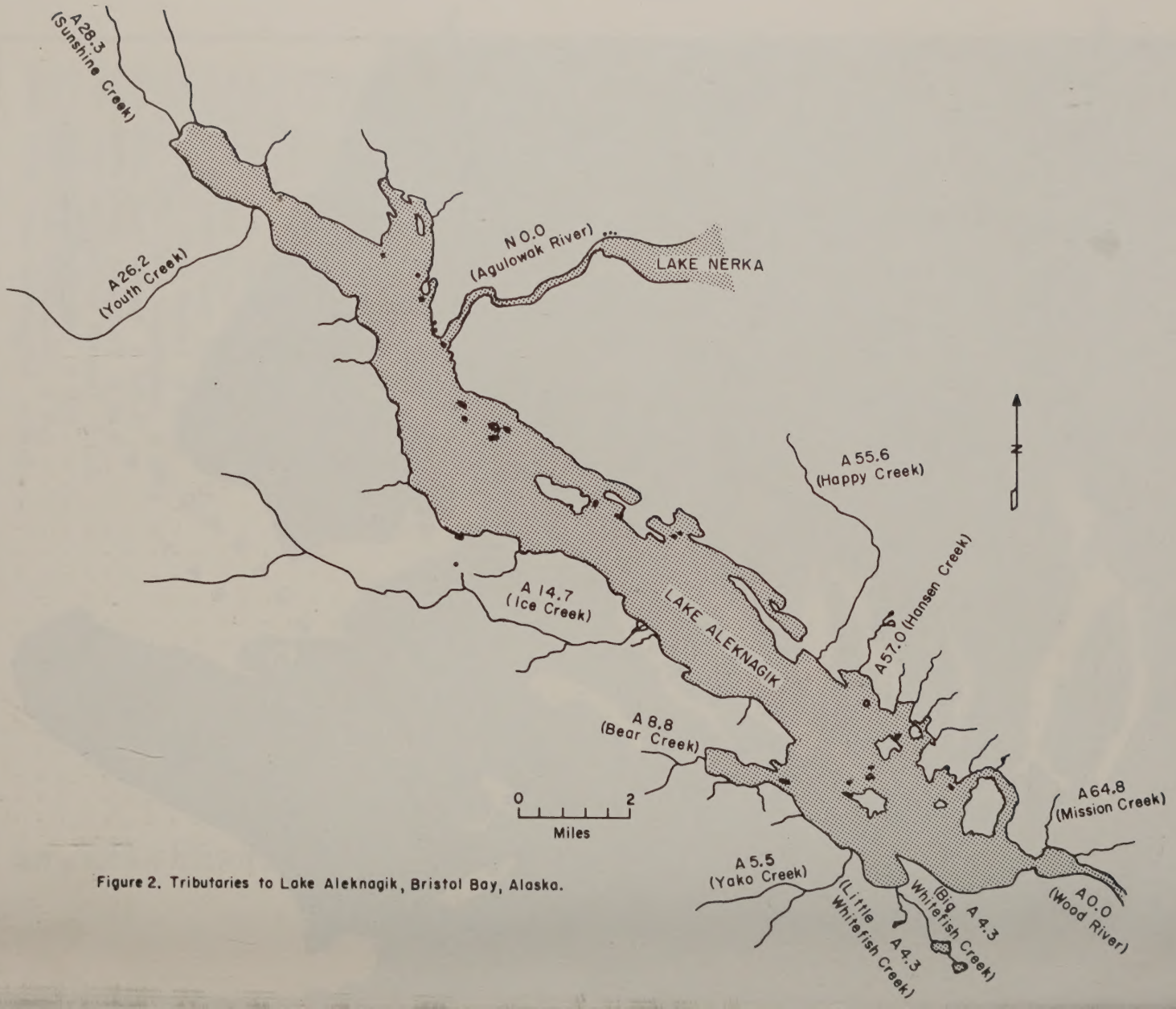

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Figure 3. Tributaries to Lake Nerka and Little Togiak Lake, Bristol Bay, Alaska.

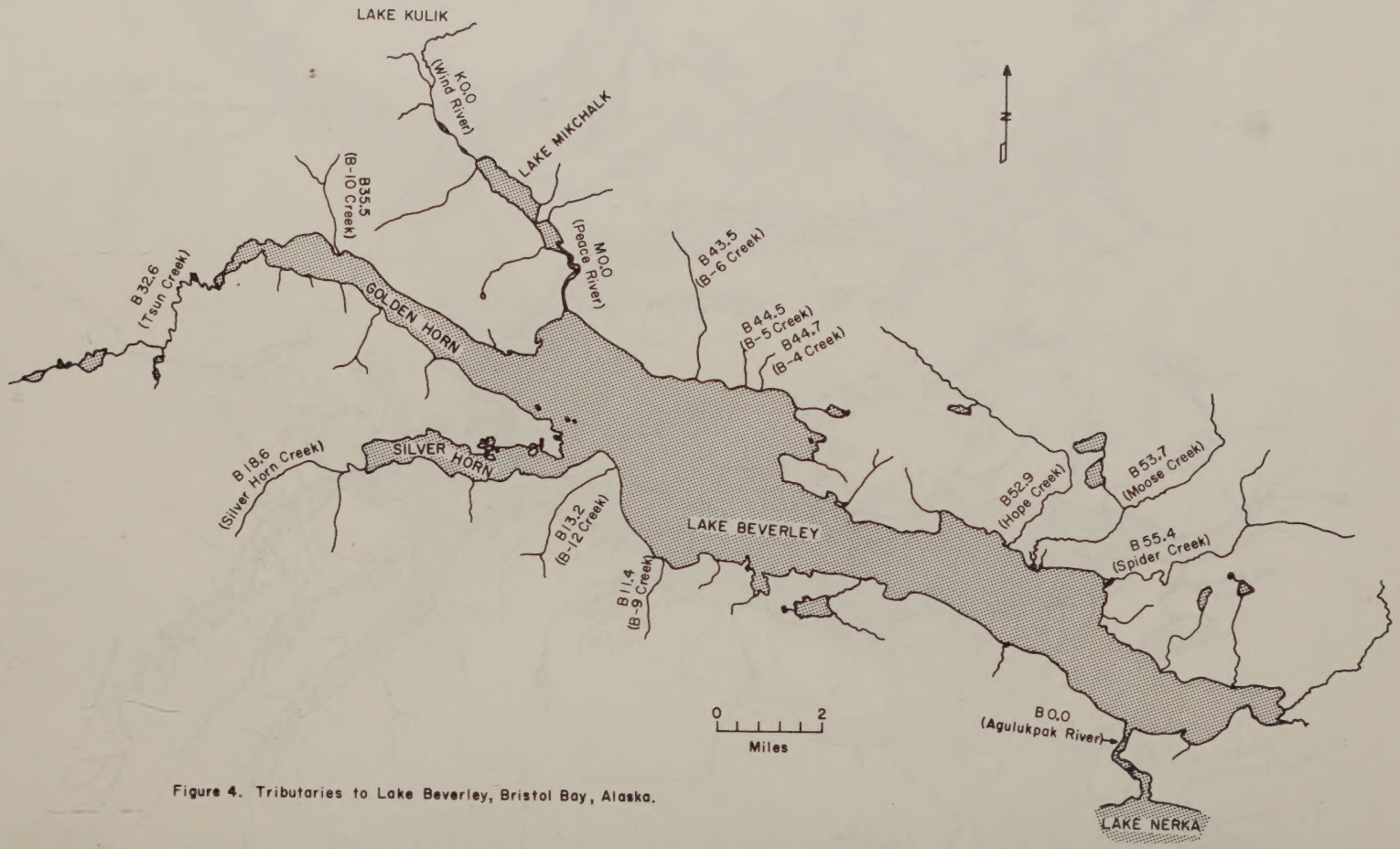

Figure 4. Tributaries to Lake Beverley, Bristol Bay, Alaska.

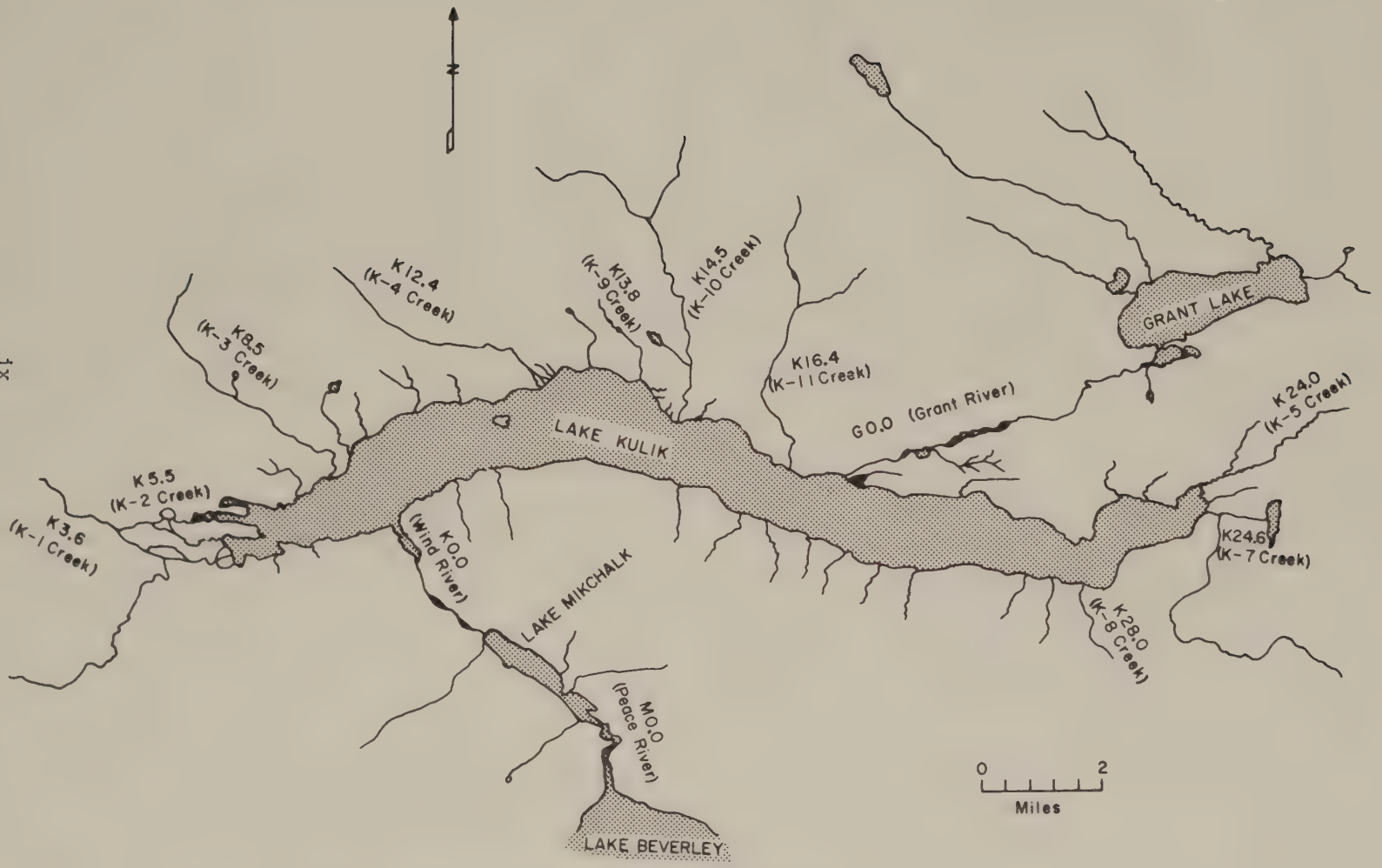

Figure 5. Tributaries to Lake Kulik and Grant Lake, Bristol Bay, Alaska.

STREAM CATALOG OF THE WOOD RIVER LAKE SYSTEM, BRISTOL BAY, ALASKA

INTRODUCTION

Studies of the spawning populations of red salmon in the Wood River lake system of western Alaska have been conducted annually since 1946. In the first years of study, emphasis was placed on the magnitude of escapement to the individual spawning areas and the length frequency and sex composition of spawning populations. In recent years attention has been turned to the escapement-return relation and the relation between numbers of spawning salmon in the individual Wood River lakes and abundance and growth of progeny.

The total escapements into the Wood River system for each of the years 1946-62 are shown in table 1.

Physical and biological information on the creeks and rivers in the system has become a backlog of useful knowledge in the study of salmon runs. Such information is now organized in the form of a catalog and is presented here. Future data can be readily added to this catalog as they are collected. The present report is confined to data on creeks and rivers in the Wood River system and does not include beach spawning areas.

Data for the years 1946-59 were collected under support of Alaska salmon industry funds. Since 1959, additional support has come from the Bureau of Commercial Fisheries. The compilation of this catalog is completed under Contracts Nos. 14-17-0005-33 and 14-17-0007-91 (B) to the Bureau of Commercial Fisheries.

SOURCES OF DATA

Descriptions of the rivers and streams have been gathered by field personnel of the Fisheries Research Institute (FRI). Data on spawning salmon for the years 1946-59 were collected by FRI; those since 1959 jointly

Table 1.--Wood River lakes red salmon escapement, 1946-62. Estimates for 1946-52 based on survey indexes; for 1953-62, on Wood River tower counts

Year	Red salmon in escapement
	Number
1946	3,717,000
1947	1,782,000
1948	1,483,250
1949	101,025
1950	451,600
1951	457,600
1952	226.800
1953	515,542
1954	570,624
1955	1,382,755
1956	773,101
1957	288,727
1958	960,455
1959	2,209,266
1960	1,016,073
1961	460,737
1962	873,888

by FRI and the Alaska Department of Fish and Game.

MAPS

Five maps are presented in this catalog. The first, figure 1, is a map of the Nushagak District, Bristol Bay, Alaska, showing the relation of the Wood River lake system to the other river systems of the district. Figures 2-5 are maps of the individual lakes of the Wood River lake system. Each map shows the number and name of streams for the lake or lakes shown. Some very small creeks are shown on the maps that are not listed in the catalog.

FISH AGE DESIGNATION

The decimal system for age designation is used in this catalog. For example, a fish of age 1.2 has completed one winter in fresh water and two winters in the ocean. In other words, the number to the left of the decimal indicates the number of winters spent in fresh water and that to the right of the decimal, the winters spent in the ocean.

EXPLANATION OF CATALOG FORMAT

The data for each river or creek in this catalog are presented on two forms. The first form lists (1) "Descriptive Form," which gives the stream locations; (2) "Physical Description," which gives the dimensions of the stream, bottom, and water conditions, etc.; (3) "Red Salmon Runs," which gives the magnitude, timing, and distribution of red salmon spawners in the stream; and (4) "General Information," which includes miscellaneous information associated with the stream. The second form is a "Summary of Surveys," which lists, year by year, an estimate of the total red salmon population in the stream and individual survey counts.

Each entry in these forms is explained as follows:

Descriptive Form

Name and numbers.--The name of the stream is placed at the top of each page. It is followed, in parentheses, by "trunk stream" or "connecting stream," if it is one, or by the name of a lake into which the stream flows. To the top left is given a stream number, which consists of a letter and a number. The letter is the first initial of the lake into which the stream flows. The number indicates the distance in miles and tenths of a mile measured in a clockwise direction from the outlet of the lake to the stream mouth. For example, stream A 4.3 is for Big Whitefish Creek of Lake Aleknagik; it is 4.3 miles by shoreline from the outlet of the lake in a clockwise direction. In the case of a trunk stream or a connecting stream, the letter represents the lake from which the stream originates, and the number will always be 0.0. For example, A 0.0 represents Wood River, the trunk stream originating from Lake Aleknagik; N 0.0 represents Agulowak River, a connecting stream originating from Lake Nerka.

Location.--Measured at the creek mouth in degrees, minutes, and seconds of latitude north and longitude west.

Previous names or numbers.--Whenever there is a previous name or number for a creek, it is listed here for easy reference to earlier records.

U.S.G.S. map.--The name, scale, and date of the map used to determine the location of the stream.

Physical Description

Total length.--Determined with the aid of a chartometer from maps.

Length accessible to salmon.--Length of stream which red salmon can negotiate.

Average width.--In feet; determined by averaging several width measurements made at various sections of the stream.

Width range.--In feet; determined from all width measurements.

Average depth.--In inches or in feet; determined by averaging the average cross-sectional depths from several sections in the lower area of the stream.

Depth range.--Usually listed in inches, but sometimes in feet; the smallest and largest average cross-sectional depths taken from the lower area of the stream.

Total accessible spawning area.--Determined by the following formula:

$$\frac{\text{Total accessible length in miles} \times 5{,}280 \times \text{average width in feet}}{43{,}560} =$$

total area in acres.

Potential spawning area.--Given in percentage and acres; determined from ground surveys of the stream based on such criteria as bottom composition, gravel size, water depth, and water velocity.

Bottom quality.--Expressed in percentage composition of the various size classes of material in the streambed.

sand, silt, clay = <1/8"
gravel = 1/8"-3"
rubble = 3"-12"
boulders = >12"

Watershed.--Lists (1) the drainage area in square miles, (2) a description of the watershed and its source, and (3) a mention of any obstructions in the stream.

Gradient.--The change of elevation in feet per mile.

Water velocity.--In feet per second (fps); listed as an average velocity and a velocity range. The average velocity was computed from several average cross-sectional velocities obtained in the lower sections of the stream. The velocity range is simply the smallest and largest average velocities obtained.

Flow.--Volume in cubic feet per second (cfs). The flow was usually measured at or near the mouth.

Flow range.--The smallest and largest flows obtained from a stream.

Air temperature.--In degrees centigrade; usually taken during spawning ground surveys. The date of observation follows the air temperature figure.

Water temperature.--In degrees centigrade of the stream water; usually taken during spawning ground surveys. The date of the measurement is given.

Pools and riffles.--Lists the general nature of the water flow of the creek.

Red Salmon Runs

Percent of total escapement.--The total number of red salmon in a stream observed through 1962 and calculated as a percentage of the total escapement into the entire Wood River system over the same years.

Escapement range.--The smallest and largest numbers of red salmon estimated for the stream through 1962.

Time of occupancy.--The period of time in which red salmon were observed in the stream.

Peak of spawning.--The date when the largest number of red salmon in the stream were spawning for any one year.

Distribution of spawners.--The relative density of spawners at various sections of the stream.

General Information

Shelter.--The location of permanent dwellings where shelter may be found in event of need.

Survey routes and methods.--From the ground or air.

Personal-use fishery.--Native subsistence fishing at or near creek mouth.

Fish species.--Species of fish besides red salmon found in the stream.

Wildlife species.--Mammals and birds observed.

Remarks.--Comments not placed in any of the above headings.

Summary of Surveys

Date surveyed.--Indicates first the year of survey for total number of salmon estimated, then the dates of individual surveys.

Method and distance.--Methods listed as "T," "A," and "G"; distance in miles. "T" is the best estimate of the total population made from all available data. The letters "A" and "G" signify aerial and ground. In some cases, the distance of survey is not listed. This means that the distance of the survey was not originally recorded.

Live.--The numbers of live red salmon in the stream.

Dead.--The numbers of dead red salmon in the stream.

Total.--Numbers of red salmon in the stream counted or estimated as a whole without separating into live and dead. When live and dead numbers are given, no total is entered.

Remarks.--Information includes the number of samples for fin rays, scales, length measurements, and otoliths; numbers of fish schooled off the mouth; general remarks of the survey.

A 0.0 WOOD RIVER (Trunk Stream)

LOCATION: 59° 16'48" N. 158° 36'48" W.

PREVIOUS NAMES OR NUMBERS:

U.S.G.S. MAP: Dillingham, Alaska, 1:250,000, 1951

PHYSICAL DESCRIPTION

TOTAL LENGTH: 19.0 miles

LENGTH ACCESSIBLE TO SALMON: 19.0 miles

AVERAGE WIDTH: RANGE: 250'-500' (Upper section only)

AVERAGE DEPTH: RANGE: 4'-18' (Upper section only)

TOTAL ACCESSIBLE SPAWNING AREA:

POTENTIAL SPAWNING AREA:

BOTTOM QUALITY: 10% boulder, 50% rubble, 30% gravel, and 10% sand and mud in upper section of approximately 2 miles. 100% mud and sand below.

WATERSHED: 1,200 square miles. Drains Wood River lake system composed of five major lakes lying in basins SE. of Wood River Mountains. West end of lakes surrounded by mountains covered with alder; east end of lakes surrounded by flat forested and tundra area.

GRADIENT:

WATER VELOCITY:

FLOW: 5,048 cfs. (July 8, 1960). Normal fall level. RANGE:

AIR TEMPERATURE:

WATER TEMPERATURE: Complete seasonal temperature records available at Fisheries Research Institute.

POOLS AND RIFFLES: Large pool off mission school dock and deep pool just above the smelter.

A 0.0 WOOD RIVER (Trunk Stream)

RED SALMON RUNS

PERCENT OF TOTAL ESCAPEMENT: 0.46%

ESCAPEMENT RANGE: 1,500-10,000

TIME OF OCCUPANCY: June 20-Sept. 20. Early fish are probably migrating adults.

PEAK OF SPAWNING: Sept. 1

DISTRIBUTION OF SPAWNERS: Most fish spawn in upper 2 miles of river. In 1961 and 1962, most fish were observed spawning on the left side.

GENERAL INFORMATION

SHELTER: FRI cabin at Mosquito Point.

SURVEY ROUTES AND METHODS: Estimates of fish usually made by aerial surveys.

PERSONAL-USE FISHERY: Not intensive.

FISH SPECIES: Chums, silvers, pinks, kings, Arctic char, rainbow trout, grayling, whitefish.

WILDLIFE SPECIES: Brown bear, bald eagle, beaver.

REMARKS: Lower portions of river contain many sand bars unsuitable for spawning.

A 0.0 WOOD RIVER (Trunk Stream)

SUMMARY OF SURVEYS

Date	Method & distance	Live	Dead	Total	Remarks
1946-53					No surveys
1954	T			2,000	
8/13	A			2,000	
1955	T			10,000	
9/9	G 2.0			6,211	
9/28	G				25 ♂, 21 ♀ scales and measurements
1956	T			9,000	
8/29	A			8,000-9,000	
9/10	G				120 ♂, 158 ♀ measurements; 80 ♂, 80 ♀ scales
1957	T			3,100	
8/8	A			3,000	Upper area of river
8/30	A	3,000	100		
9/15	G				46 ♂, 126 ♀ measurements; 40 ♂, 100 ♀ scales. Large fish, many degenerated scales
1958	T			1,700	
8/7	A			1,500	Schooled
8/27	A			1,700	Scattered groups to Silver Salmon Creek
1959	T			4,000	
8/10	A			2,500	
8/27	A			4,000	

WOOD RIVER (Trunk Stream)

SUMMARY OF SURVEYS

Date	Method & Distance	Live	Dead	Total	Remarks
1960	T			1,800	
8/28	A			1,800	
1961	T			4,000	
8/10	G	1,384	0		
8/29	A			4,000	
1962	T			1,500	
8/30	A			1,500	

A 4.3 BIG WHITEFISH CREEK (Lake Aleknagik)

LOCATION: 59°16'18" N. 158°40'30" W.

PREVIOUS NAMES OR NUMBERS:

U.S.G.S. MAP: Dillingham, Alaska, 1:250,000, 1951

PHYSICAL DESCRIPTION

TOTAL LENGTH: 1.6 miles

LENGTH ACCESSIBLE TO SALMON: 1.6 miles

AVERAGE WIDTH: 10' RANGE: 6'-18'

AVERAGE DEPTH: 12" RANGE: 6"-30"

TOTAL ACCESSIBLE SPAWNING AREA: 1.94 acres

POTENTIAL SPAWNING AREA: 75%; 1.45 acres

BOTTOM QUALITY: 50% gravel, 30% rubble, 20% sand, mud, and clay

WATERSHED: 4.5 square miles. Creek traverses forested hills and narrow tundra areas. Two tundra lakes in a series serve as a source. Larger tundra lake 0.5 square mile. Since 1957, two beaver dams just below lake.

GRADIENT:

WATER VELOCITY: Average = 2.8 fps.
Range = 1.0-3.5 fps.

FLOW: 15.0 cfs. (Aug. 11, 1961). Normal fall level. Flow station 100 feet up from mouth. RANGE:

AIR TEMPERATURE:

WATER TEMPERATURE: 15.3° C. (Aug. 10, 1962)

POOLS AND RIFFLES: Several deep areas positioned near cutbanks one-half mile below Whitefish Lake.

A 4.3 BIG WHITEFISH CREEK (Lake Aleknagik)

RED SALMON RUNS

PERCENT OF TOTAL ESCAPEMENT: 0.15%

ESCAPEMENT RANGE: 85-10,000

TIME OF OCCUPANCY: July 26-Sept. 1. Earliest fish are migrating to lake.

PEAK OF SPAWNING: Aug. 18

DISTRIBUTION OF SPAWNERS: Most spawning in gravel pockets among rubble in upper third of creek. Shore spawning near outlet of lake.

GENERAL INFORMATION

SHELTER: FRI cabin at Mosquito Point.

SURVEY ROUTES AND METHODS: Ground surveys in earlier years, aerial surveys in later years.

PERSONAL-USE FISHERY: None observed.

FISH SPECIES: Arctic char, chums, lamprey, rainbow trout, whitefish.

WILDLIFE SPECIES: Brown bear, bald eagle, beaver.

REMARKS:

A 4.3 BIG WHITEFISH CREEK (Lake Aleknagik)

SUMMARY OF SURVEYS

Date	Method & distance	Live	Dead	Total	Remarks
1946	T			10,000	
8/3	G			1,400	Plus 700 schooled below lake
8/30	G			7,560	110 ♂, 90 ♀ measurements. Counts estimates
1947	T			1,884	
7/31	G			912	Counts mostly in upper section
8/1	G 1.6			312	Many fish in lake
8/7	G			1,303	
8/26	G			1,884	27 ♂, 53 ♀ measurements in creek. 47 ♂, 13 ♀ measurements in lake
1948	T			5,671	
8/10	G			5,671	4,500 of these schooled below lake outlet
1949	T			422	
8/16	G			422	None off mouth
8/23	G			376	None off mouth
8/31	G			197	
1950	T			262	
7/26	G			31	1,000 off mouth
7/27	G			14	

A 4.3 BIG WHITEFISH CREEK (Lake Aleknagik)

SUMMARY OF SURVEYS

Date	Method & distance	Live	Dead	Total	Remarks
1950					
7/28	G			23	
7/29	G			64	
8/1	G				Still large school off mouth
8/3	G			262	School at mouth probably going to Little Whitefish Creek
1951	T			752	
8/1	G			0	100 off mouth
8/9	G 1.6			752	15 off mouth. Most below lake
8/25	G			346	None off mouth
8/28	G 1.6				113 measurements in lake
1952	T			439	
8/1	G 1.6			102	Schooled below lake. Few off mouth
8/12	G			439	
1953	T			1,262	
7/24	A				100-300 off mouth. None in creek
8/4	G				200 off mouth
8/11	G 1.6			1,262	100-200 off mouth. 500 fish of the count may be lake fish. 35 ♂, 35 ♀ scales; 20 ♂, 20 ♀ measurements

A 4.3 BIG WHITEFISH CREEK (Lake Aleknagik)

SUMMARY OF SURVEYS

Date	Method & distance	Live	Dead	Total	Remarks
1954	T			1,222	
8/2	G			136	100-200 off mouth
8/14	G 1.6			1,222	50 off mouth. Most fish in upper part of creek. Many fish in lake
1955	T			1,318	
8/2	G 1.6			200	300 off mouth. 50 fish in lake
8/6	G			1,000	150-300 off mouth
8/8	A 1.6			500	300 off mouth. Estimated 600 in lake
8/8	A 1.6			1,000	1,000 off mouth. Estimated 1,000 in lake
8/27	A 1.6			1,318	To Beaver Dam. 605 counted in lake. 20 ♂, 20 ♀ scales; 100 ♂, 100 ♀ measurements
1956	T			1,024	
7/30	G			0	Surveyed lower section only
8/8	G 1.6	1,019	5		300-400 off mouth. Estimated 150 in lake
8/29	A 1.6			200	Lower creek
1957	T			85	
8/10	G 1.6			85	Estimated 15 in lake
8/30	A				A few dead

A 4.3 BIG WHITEFISH CREEK (Lake Aleknagik)

SUMMARY OF SURVEYS

Date	Method & distance	Live	Dead	Total	Remarks
1958	T			300	
8/7	A 1.6			300	800 off mouth
1959	T			2,200	
8/10	A 1.6				300 off mouth. No estimate in creek or lake
8/11	A 1.6			2,200	
1960	T			2,000	
8/9	A 1.6			2,000	
1961	T			300	
8/6	A 1.6			300	
8/11	G 1.6	190	5		40-50 fish spawning west of of lake outlet
1962	T			880	
8/6	A 1.6			880	
8/10	G 1.6	536	17		51 fish observed spawning in lake

A 4.3 LITTLE WHITEFISH CREEK (Lake Aleknagik)

LOCATION: 59°16'18" N. 158°40'30" W.

PREVIOUS NAMES OR NUMBERS:

U.S.G.S. MAP: Dillingham, Alaska, 1:250,000, 1951

PHYSICAL DESCRIPTION

TOTAL LENGTH: 0.8 mile

LENGTH ACCESSIBLE TO SALMON: 0.8 mile

AVERAGE WIDTH: 5'6" RANGE: 3'-7'

AVERAGE DEPTH: 5" RANGE: 3"-24"

TOTAL ACCESSIBLE SPAWNING AREA: 0.5± acre

POTENTIAL SPAWNING AREA: 92%; 0.47 acre

BOTTOM QUALITY: 100% gravel

WATERSHED: 0.5 square mile. Creek mouth cut in tundra. Upper sections of creek brushy and surrounded by small trees, spring fed. No obstructions.

GRADIENT:

WATER VELOCITY: Average = 2.2 fps.

FLOW: 5.0 cfs. Normal fall level. RANGE:

AIR TEMPERATURE:

WATER TEMPERATURE: 11.4° C. (Aug. 10, 1962)

POOLS AND RIFFLES: Numerous hiding places under tundra banks.

A 4.3 LITTLE WHITEFISH CREEK (Lake Aleknagik)

RED SALMON RUNS

PERCENT OF TOTAL ESCAPEMENT: <0.1%

ESCAPEMENT RANGE: 48-2,866

TIME OF OCCUPANCY: July 23-Aug. 22

PEAK OF SPAWNING: Aug. 8. Another wave of fish may appear later in some years.

DISTRIBUTION OF SPAWNERS: Most spawning in upper sections.

GENERAL INFORMATION

SHELTER: FRI cabin at Mosquito Point.

SURVEY ROUTES AND METHODS: Ground surveys in earlier years, aerial surveys in later years.

PERSONAL-USE FISHERY: Not observed.

FISH SPECIES: None observed.

WILDLIFE SPECIES: Brown bear, bald eagle, beaver.

REMARKS: The water temperature in 1962 was much higher than normal.

A 4.3 LITTLE WHITEFISH CREEK (Lake Aleknagik)

SUMMARY OF SURVEYS

Date	Method & distance	Live	Dead	Total	Remarks
1946-49					No surveys
1950	T			818	
7/29	G			531	
7/30	G			445	400 off mouth
8/1	G			582	Large school off mouth
8/3	G			699	Most fish in upper areas
8/14	G			818	Most fish spent
1951	T			418	
7/23	G			6	None off mouth. Lower part of creek
8/1	G			72	All fish in lower area. Fish just entering
8/9	G			418	15 off mouth. Most fish in creek spent. 23 ♂, 16 ♀ measurements; 20 ♂, 20 ♀ scales
8/16	G				78 ♂, 82 ♀ measurements
1952	T			209	
8/1	G			0	
8/3	G			157	Surveyed to upper area
8/11	G			209	Surveyed to upper area. Most fish spent. 29 ♂, 54 ♀ measurements; 20 ♂, 20 ♀ scales

A 4.3 LITTLE WHITEFISH CREEK (Lake Aleknagik)

SUMMARY OF SURVEYS

Date	Method & distance	Live	Dead	Total	Remarks
1953	T			1,080	
7/18	G				300 off mouth
8/4	G			880	200 off mouth. Surveyed to upper area. 34 ♂, 98 ♀ measurements; 20 ♂, 20 ♀ scales
8/11	G			111	Surveyed upper area only. Most fish spent but new wave of fish entering lower section
1954	T			1,545	
8/2	G			912	200 off mouth. Surveyed to upper area
8/14	G			1,545	50 off mouth. 95 ♂, 93 ♀ measurements; 20 ♂, 20 ♀ scales. Most fish dead
1955	T			2,866	
7/31	G			1	1,000 off mouth
8/8	G	1,660	80		Most in upper areas
8/13	G	2,444	422		20 ♂, 20 ♀ scales and measurements
8/27	G				67 ♂, 46 ♀ measurements; 20 ♂, 20 ♀ scales
1956	T			1,870	
7/30					Fish present in lower part but no count
8/8	G	1,152	218		500 off mouth. Fresh pre-spawners

A 4.3 LITTLE WHITEFISH CREEK (Lake Aleknagik)

SUMMARY OF SURVEYS

Date	Method & distance	Live	Dead	Total	Remarks
1957	T			48	
8/10	G	24	24		To end of spawning near source
1958-62					Very few fish observed

A 5.5 YAKO CREEK (Lake Aleknagik)

LOCATION: 59°16'48" N. 158°41'42" W.

PREVIOUS NAMES OR NUMBERS:

U.S.G.S. MAP: Dillingham, Alaska, 1:250,000, 1951

PHYSICAL DESCRIPTION

TOTAL LENGTH: 3.5 miles

LENGTH ACCESSIBLE TO SALMON: 3.5 miles

AVERAGE WIDTH: 14' RANGE: 7'-32' (Lower part)

AVERAGE DEPTH: 10" RANGE: 6"-36" (Midstream)

TOTAL ACCESSIBLE SPAWNING AREA: 5.94 acres

POTENTIAL SPAWNING AREA: 50%; 2.97 acres

BOTTOM QUALITY: 70% gravel, 30% rubble

WATERSHED: 3 square miles. Creek surrounded by flat brushy area; several cut banks. Both forks begin on ridge separating Aleknagik and Snake Lakes. Many logs across creek but no barriers to salmon.

GRADIENT:

WATER VELOCITY: Average = 2.75 fps.
Range = 1.5-3.5 fps.

FLOW: 25.67 cfs. (Aug. 3, 1946). Low water level.
11.0 cfs. (Aug. 11, 1948). Medium-low water level.
20.24 cfs. (Aug. 10, 1960). Medium water level. Flow station at mouth.
RANGE: 11-25.67 cfs.

AIR TEMPERATURE: 20.6° C. (Aug. 10, 1960)

WATER TEMPERATURE: 6.9° C. (Aug. 3, 1946); 7.2° C. (Aug. 10, 1960); 7.3° C. (Aug. 9, 1962)

POOLS AND RIFFLES: Numerous narrow deep pools every 100 feet.

A 5.5 YAKO CREEK (Lake Aleknagik)

RED SALMON RUNS

PERCENT OF TOTAL ESCAPEMENT: 0.19%

ESCAPEMENT RANGE: 100-5,604

TIME OF OCCUPANCY: July 24-Aug. 20

PEAK OF SPAWNING: Aug. 10

DISTRIBUTION OF SPAWNERS: Spawning scattered fairly uniformly along entire lower area but thins out after approximately 1.5 miles.

GENERAL INFORMATION

SHELTER: FRI cabin at Mosquito Point.

SURVEY ROUTES AND METHODS: Ground surveys in earlier years, aerial surveys in later years.

PERSONAL-USE FISHERY: Extensive in most years.

FISH SPECIES: None observed.

WILDLIFE SPECIES: Brown bear, bald eagle.

REMARKS: Full potential of creek held back by native fishery.

A 5.5 YAKO CREEK (Lake Aleknagik)

SUMMARY OF SURVEYS

Date	Method & distance	Live	Dead	Total	Remarks
1946	T			5,604	
8/3	G	4,500	1,104		2,000 off mouth
8/30	G				53 ♂, 104 ♀ measurements; 35 scales
1947	T			5,604	
7/30					As numerous as 1946
1948	T			643	
8/11	G 0.17	288	355		200 off mouth. 100 ♂, 100 ♀ measurements; 15 ♂, 15 ♀ scales
1949					No survey
1950	T			266	
7/21	G 0.1	40	1		200-300 off mouth
7/27	G 0.87	263	3		200-300 off mouth
1951	T			631	
7/23	G			200-300	200-300 off mouth
7/31	G	616	15		600-800 off mouth. 4 ♂, 3 ♀ scales and measurements
1952	T			171	
8/2	G 0.17	164	7		Heavy native fishery
1953	T			1,446	
8/4	G 0.27	556	132		20 ♂, 20 ♀ scales and measurements

A 5.5 YAKO CREEK (Lake Aleknagik)

SUMMARY OF SURVEYS

Date	Method & distance	Live	Dead	Total	Remarks
1953					
8/5	G 1.2	1,130	316		59 ♂, 59 ♀ measurements
8/8	G 0.27	530	110		23 ♂, 22 ♀ measurements
1954	T			3,200	
7/26	G 0.87			644	
8/1	G 1.2			2,201	110 measurements; 20 ♂, 20 ♀ scales
8/7	G 1.2			3,200	97 measurements
1955	T			4,000	
8/9	G 0.87	1,023	148		6,000-7,000 fish taken by native fishery. 100 ♂, 72 ♀ measurements; 200 ♂, 20 ♀ scales
1956	T			4,000	
7/31	G			4,000	Large school off mouth
8/6	G 1.2			3,008	500 off mouth. No fishery present. 100 ♂, 100 ♀ measurements; 20 ♂, 20 ♀ scales
8/8	G				1,500 off mouth
1957	T			485	
7/25	G 0.2	340	50		15 off mouth
8/2	G 0.27	227	258		Heavy native fishery. 46 ♂, 100 ♀ measurements
8/11	G				64 ♂, 40 ♀ measurements; scales taken on .2 fish

A 5.5 YAKO CREEK (Lake Aleknagik)

SUMMARY OF SURVEYS

Date	Method & distance	Live	Dead	Total	Remarks
1958	T			475	
8/7	A 3.5				1,000 off mouth
8/8	G	400	5		Too early for sample. 3 ♂, 3 ♀ measurements
8/20	G				55 ♂, 97 ♀ measurements; 55 ♂, 60 ♀ scales
1959	T			500	
7/14	A 3.5				600 off mouth
8/8	G				105 ♂, 105 ♀ measurements; 60 ♂, 60 ♀ scales. Heavy native fishery
8/10	A 3.5			500	1,000 off mouth
1960	T			700	
8/10	G 1.2			675	100 off mouth. No native fishery. 56 ♂, 18 ♀ measurements; 53 ♂, 18 ♀ scales
1961	T			100	
8/6	A 3.5			100	
8/8	G	61	0		Extremely heavy native fishery
1962	T			1,360	
8/5	A 3.5			1,360	
8/9	G	822	55		Native fishery moderate; heavy on beach spawners. Surveyed to high cut banks

A 8.8 BEAR CREEK (Lake Aleknagik)

LOCATION: 59°18'12" N. 158°46'18" W.

PREVIOUS NAMES OR NUMBERS:

U.S.G.S. MAP: Dillingham, Alaska, 1:250,000, 1951

PHYSICAL DESCRIPTION

TOTAL LENGTH: 2 miles

LENGTH ACCESSIBLE TO SALMON: 2 miles

AVERAGE WIDTH: 16' RANGE: 6'-25'

AVERAGE DEPTH: 7½ inches RANGE: 4"-18"

TOTAL ACCESSIBLE SPAWNING AREA: 3.88 acres

POTENTIAL SPAWNING AREA: 85%; 3.30 acres

BOTTOM QUALITY: 90% gravel, 10% sand

WATERSHED: 8.2 square miles. Creek surrounded by forested area. Spring fed north fork flows from springs and Bear Mountain snowfield. Frequently 1-3 beaver dams on north fork which may block salmon.

GRADIENT:

WATER VELOCITY: Average = 2.3 fps
Range = 1.0-2.5 fps.

FLOW: 6.3 cfs. (Aug. 11, 1948). Water level low. RANGE: 6.3-34.5 cfs
34.5 cfs. (Aug. 8, 1960). Water level high. Flow station one-fourth mile up.

AIR TEMPERATURE: 16.1° C. (Aug. 8, 1960); 18.1° C. (Aug. 8, 1962)

WATER TEMPERATURE: 8.6° C. (Aug. 8, 1960); 6.8° C. (Aug. 8, 1962)

POOLS AND RIFFLES: Two small pools in lower part of creek.

A 8.8 BEAR CREEK (Lake Aleknagik)

RED SALMON RUNS

PERCENT OF TOTAL ESCAPEMENT: 0.38%

ESCAPEMENT RANGE: 500-10,000

TIME OF OCCUPANCY: July 17-Aug. 15

PEAK OF SPAWNING: Aug. 5

DISTRIBUTION OF SPAWNERS: Most spawning in lower 0.66 mile, thins out rapidly in both branches above fork of stream.

GENERAL INFORMATION

SHELTER: FRI cabin at Mosquito Point.

SURVEY ROUTES AND METHODS: Ground surveys in earlier years, mostly aerial surveys in later years.

PERSONAL-USE FISHERY: Not extensive.

FISH SPECIES: Chums.

WILDLIFE SPECIES: Brown bear, bald eagle, beaver.

REMARKS: Creek has excellent spawning gravel.

A 8.8 BEAR CREEK (Lake Aleknagik)

SUMMARY OF SURVEYS

Date	Method & distance	Live	Dead	Total	Remarks
1946	T			10,000	
8/7	G	3,305	562		1,000-2,000 off mouth. 34 ♂, 82 ♀ scales
1947	T			6,000	
8/1	G	1,200	Few		
8/4	G	1,685	257		42 ♀ measurements
8/9	G	1,903	743		105 ♂, 99 ♀ measurements; 60 scales
1948	T			3,880	
8/11	G	1,341	1,898		400-500 off mouth. 101 ♂, 101 ♀ measurements; 15 ♂, 15 ♀ scales
1949	T			500	
7/30	G	132	30		300 off mouth
8/5	G	330	120		
8/9	G	168	266		22 ♂, 27 ♀ measurements; 10 ♂, 10 ♀ scales
8/15	G	9	346		Heavy native fishery. 16 ♂, 8 ♀ measurements; 10 ♂, 9 ♀ scales
1950	T			2,060	
7/21	G	327	21		100 off mouth. 6 ♂, 5 ♀ scales and measurements
7/28	G	874	125		Several hundred off mouth. 30 ♂, 50 ♀ measurements; 20 ♂, 20 ♀ scales

A 8.8 BEAR CREEK (Lake Aleknagik)

SUMMARY OF SURVEYS

Date	Method & distance	Live	Dead	Total	Remarks
1950					
8/2	G	1,264	531		Several hundred off mouth. 71 ♂, 50 ♀ measurements
1951	T			2,290	
7/23	G	690	0		300-400 off mouth
7/28	G			1,094	1,276 off mouth. 15 ♂, 54 ♀ measurements; 15 ♂, 20 ♀ scales
8/2	G			2,000	600-800 off mouth. 54 ♂, 108 ♀ measurements; 20 ♂, 20 ♀ scales
8/5	G				85 ♂, 49 ♀ measurements; 5 ♂ scales
1952	T			2,147	
7/26	G	52	46		To stream forks
7/29	G			2,000	3 ♂, 30 ♀ measurements; 3 ♂, 20 ♀ scales
8/2	G	1,561	273		Surveyed to head of spawning. 21 ♂, 92 ♀ measurements; 17 ♂ scales
8/9	G				71 ♂ scales
1953	T			2,575	
7/17	G	716	4		20 ♂, 2 ♀ measurements;
7/18	G	416	28		6 ♂, 4 ♀ scales and measurements
7/19	G	726	36		3 ♂ scales and measurements
7/20	G	653	62		

A 8.8 BEAR CREEK (Lake Aleknagik)

SUMMARY OF SURVEYS

Date	Method & Distance	Live	Dead	Total	Remarks
1953					
7/21	G	849	122		21 ♂, 18 ♀ measurements; 11 ♂, 6 ♀ scales
7/22	G	709	64		
7/23	G	1,290	129		27 ♂, 27 ♀ measurements
7/24	G	981	126		
7/25	G	1,181	208		48 ♂, 61 ♀ measurements
7/27	G	1,436	214		
7/28	G	1,007	248		
7/30	G	1,121	418		
8/3	G	1,815	620		
8/8	G	1,887	698		
1954	T			2,300	
7/26	G			342	200 off mouth
7/30	G			712	400-500 off mouth. 22 ♂, 57 ♀ measurements; 20 ♂, 20 ♀ scales
8/5	G			1,433	200 off mouth. 64 ♂, 62 ♀ measurements
8/15	G			2,157	100-150 off mouth
1955	T			9,000	
8/4	G	5,581	232		2,000 off mouth
8/9	G				500 off mouth

A 8.8 BEAR CREEK (Lake Aleknagik)

SUMMARY OF SURVEYS

Date	Method & distance	Live	Dead	Total	Remarks
1955					
8/10	G	7,656	1,260		50 off mouth
8/28	G				24 ♂, 21 ♀ measurements; 20 ♂, 20 ♀ scales
1956	T			7,000	
7/16	G				800 off mouth
7/30	G			2,500	2,318 above first bend
8/3	G	2,882	250		400 off mouth. 100 ♂, 81 ♀ scales and measurements
8/8	A 2.0			5,000	2,000 off mouth
8/9	A 2.0			2,000-3,000	2,000 off mouth
1957	T			5,000	
7/25	G	840	115		120 off mouth. To forks
7/29	A 2.0			2,000	2,500-3,000 off mouth
8/2	G			1,564	Large school off mouth. 100 ♂, 100 ♀ measurements; 80 ♂, 80 ♀ scales
8/10	G				100 ♂, 100 ♀ measurements. Almost as many as 1956
1958	T			4,000	
8/7	A 2.0			2,000-3,000	1,000 off mouth
8/8	G			1,240	24 ♂, 40 ♀ measurements; 24 ♂, 30 ♀ scales. Above first bend. Otoliths taken

A 8.8 BEAR CREEK (Lake Aleknagik)

SUMMARY OF SURVEYS

Date	Method & distance	Live	Dead	Total	Remarks
1958					
8/11	G				20 ♂, 23 ♀ scales and measurements
8/19	G				66 ♂, 108 ♀ scales and measurements. Otoliths were taken on .3 fish in addition
1959	T			3,500	
7/14	A 2.0				100 off mouth
8/8	G			2,500	300 off mouth. 107 ♂, 104 ♀ measurements; 60 ♂, 60 ♀ scales
8/10	A 2.0			3,500	
1960	T			1,735	
8/8,11	G			1,735	116 ♂, 100 ♀ measurements; 100 ♂, 100 ♀ scales; 50 ♂, 50 ♀ otoliths. Late spawning peak (Aug. 12)
1961	T			1,200	
8/6	A 2.0			1,200	
8/2,5	G	588	374		100 ♂, 100 ♀ scales and measurements; 60 ♂, 60 ♀ otoliths. Counts Aug. 5 and Aug. 2 dead compiled
1962	T			1,240	
8/2	A 2.0			1,240	
8/8	G	827	168		100 ♂, 100 ♀ scales, measurements and otoliths. 20 ♂, 20 ♀ fin rays. All fish below forks

A 14.7 ICE CREEK (Lake Aleknagik)

LOCATION: 59°20'24" N. 158°48'18" W.

PREVIOUS NAMES OR NUMBERS:

U.S.G.S. MAP: Dillingham, Alaska, 1:250,000, 1951

PHYSICAL DESCRIPTION

TOTAL LENGTH: 10 miles

LENGTH ACCESSIBLE TO SALMON: 10 miles

AVERAGE WIDTH: 50' RANGE: 35'-90'

AVERAGE DEPTH: 20" RANGE: 14"-60" (Midstream)

TOTAL ACCESSIBLE SPAWNING AREA: 60.61 acres

POTENTIAL SPAWNING AREA: 85%, 51.51 acres

BOTTOM QUALITY: 90% gravel, 5% mud, 5% sand

WATERSHED: 26.5 square miles. Long open drainage creek flowing through wide flat valley. Tundra on north side, many side channels, many log jams.

GRADIENT:

WATER VELOCITY: Average = 2.8 fps.
Range = 2.0-3.0 fps.

FLOW: 122.6 cfs. (Aug. 21, 1960). RANGE:
Medium water level.

AIR TEMPERATURE: 12.8° C. (Aug. 12, 1960)

WATER TEMPERATURE: 8.3° C. (Aug. 12, 1960)

POOLS AND RIFFLES: Many narrow deep spots behind log jams.

A 14.7 ICE CREEK (Lake Aleknagik)

RED SALMON RUNS

PERCENT OF TOTAL ESCAPEMENT: 0.57%

ESCAPEMENT RANGE: 153-18,000

TIME OF OCCUPANCY: July 26-Aug. 26

PEAK OF SPAWNING: Aug. 8

DISTRIBUTION OF SPAWNERS: Fish spread out for at least lower 7 miles. Best spawning 3-5.5 miles upstream.

GENERAL INFORMATION

SHELTER: John Pearson's scow at mouth of Agulowak River.

SURVEY ROUTES AND METHODS: Ground surveys in earlier years, aerial surveys in later years.

PERSONAL-USE FISHERY: None observed.

FISH SPECIES: Many chums, some pinks, occasional kings.

WILDLIFE SPECIES: Brown bear, bald eagle.

REMARKS:

A 14.7 ICE CREEK (Lake Aleknagik)

SUMMARY OF SURVEYS

Date	Method & distance		Live	Dead	Total	Remarks
1946	T				15,330	
8/6	G	6.5	10,065	654		70% of total
1947	T				4,752	
8/10	G	2.0	385	589		33 ♂, 48 ♀ measurements; 20 ♂, 20 ♀ scales. Fish earlier than normal
1948						No survey
1949	T				153	
8/8	G		0	9		Heavy native fishery
1950	T				7,665	
8/13	G	2.0	631	738		20 ♂, 89 ♀ measurements; 20 ♂, 20 ♀ scales
1951	T				3,986	
8/8	G	2.0	573	105		34 ♂, 11 ♀ measurements; 20 ♂, 11 ♀ scales. Water level high, visibility poor
8/17	G		491	1,663		71 ♂, 90 ♀ measurements; 10 ♀ scales. Counts made in middle 1.5 miles
1952	T				2,759	
8/13	G		85	405		104 ♂, 102 ♀ measurements; 20 ♂, 20 ♀ scales. Counts made in middle 1.5 miles
1953	T				1,952	
8/10	G		629	1,323		100 ♂, 100 ♀ measurements; 20 ♂, 20 ♀ scales

A 14.7 ICE CREEK (Lake Aleknagik)

SUMMARY OF SURVEYS

Date	Method & distance	Live	Dead	Total	Remarks
1954	T			1,083	
8/8	G			1,083	114 ♂, 72 ♀ measurements; 20 ♂, 20 ♀ scales. Counts made in middle 1.5 miles
1955	T			18,000	
8/18	G	2,407	7,309		100 ♂, 100 ♀ measurements; 20 ♂, 20 ♀ scales. Counts made in middle 1.5 miles
1956	T			8,000	
7/22	A				1,000-2,000 off mouth
8/2	A			7,000-8,000	200 off mouth
8/7	G			4,700	Count made in middle 1.5 miles
8/8	A			5,500	100 off mouth. Surveyed to middle of creek
8/29	G	800-1,000	5,000-6,000		Surveyed to middle of creek
1957	T			3,525	
7/26	A			3,500	25 off mouth
8/7	G	1,504	761		Counts made in middle 1.5 miles. 90 ♂, 100 ♀ scales and measurements
1958	T			2,200	
8/7	A			2,100	None off mouth
8/20	G	166	377		Long past peak. Counts made in middle 1.0 mile. 46 ♂, 100 ♀ scales and measurements

ICE CREEK (Lake Aleknagik)

SUMMARY OF SURVEYS

Date	Method & distance	Live	Dead	Total	Remarks
1959	T			2,500	
8/10	A			2,500	2,000 off mouth
8/18	G				100 ♂, 100 ♀ scales and measurements. Relatively poor run
1960	T			7,000	
8/9	A			7,000	
8/12	G				75 ♂, 115 ♀ measurements; 70 ♂, 100 ♀ scales. Past peak of spawning
1961	T			2,500	
8/6	A			2,500	
8/7	G	1,515	161		100 ♂, 100 ♀ measurements; 60 ♂, 60 ♀ scales. Counts made in middle 1.5 miles
1962	T			2,200	
8/9	A			2,000	Poor run

A 26.2 YOUTH CREEK (Lake Aleknagik)

LOCATION: 59°26'24" N. 159°01'00" W.

PREVIOUS NAMES OR NUMBERS:

U.S.G.S. MAP: Goodnews, Alaska, 1:250,000, 1951

PHYSICAL DESCRIPTION

TOTAL LENGTH: 13 miles

LENGTH ACCESSIBLE TO SALMON: Not observed.

AVERAGE WIDTH: Approximately 45' RANGE: 30'-80'

AVERAGE DEPTH: 3.5' (Midstream) RANGE: 1.6'-8.0' (Midstream)

TOTAL ACCESSIBLE SPAWNING AREA: 70.89 acres

POTENTIAL SPAWNING AREA:

BOTTOM QUALITY: 70% rubble, 20% sand, 10% gravel

WATERSHED: 18.0 square miles. Mountain valley drainage through short canyon and flat grade. No obstructions for at least 3 miles.

GRADIENT:

WATER VELOCITY: Average = 3.5 fps.
Range = 2.5-4.0 fps.

FLOW: 250 cfs. (Aug. 9, 1961). High water level. Flow station 200 yards up from mouth. RANGE:

AIR TEMPERATURE: Not observed.

WATER TEMPERATURE: Not observed.

POOLS AND RIFFLES: Several deep areas.

A 26.2 YOUTH CREEK (Lake Aleknagik)

RED SALMON RUNS

PERCENT OF TOTAL ESCAPEMENT: 0.02%

ESCAPEMENT RANGE: 0-800

TIME OF OCCUPANCY: July 24-Aug. 30

PEAK OF SPAWNING: Approximately Aug. 10

DISTRIBUTION OF SPAWNERS: Spawning scattered, sometimes up to 3 miles.

GENERAL INFORMATION

SHELTER: John Pearson's scow at mouth of Agulowak River.

SURVEY ROUTES AND METHODS: Ground surveys in earlier years, aerial surveys in later years.

PERSONAL-USE FISHERY: None observed.

FISH SPECIES: Chums, pinks (seen near mouth).

WILDLIFE SPECIES: Brown bear, bald eagle.

REMARKS: Poor utilization by red salmon probably due to flash floods, hard packed streambed, and high water velocities.

A 26.2 YOUTH CREEK (Lake Aleknagik)

SUMMARY OF SURVEYS

Date	Method & distance	Live	Dead	Total	Remarks
1946	T			544	
8/5	G 4.0			544	1,000 off mouth. 4-5 miles upstream
9/1	G 2.0	Few	79		9 ♂, 70 ♀ measurements
1947	T			123	
8/11	G 1.5			109	Few off mouth
8/22	G 1.5			46	
1948	T			45	
8/16	A 0.75			0	40 off mouth
1949	T			150	
8/8	G 0.75			132	None off mouth
1950	T			204	
8/15	G 0.75			180	200 off mouth
1951	T			159	
7/11	A				10 off mouth. None in creek
8/19	G 3.0			159	132 in lower 0.75 mile
1952					No survey
1953	T			227	
7/24	G				200-300 off mouth. Few fish
8/3	G 0.33			200	1,500 off mouth

A 26.2 YOUTH CREEK (Lake Aleknagik)

SUMMARY OF SURVEYS

Date	Method & distance	Live	Dead	Total	Remarks
1953					
8/9	G				Two moderate sized schools off mouth
8/13	G 0.75			8	
1954	T			50	
7/25	A			50-100	300-400 off mouth. None above lower 1 mile
8/4	A				300-500 off mouth
8/18	G 0.75			32	None off mouth
1955	T			500	
8/19	A 0.75			500	Moving schools
1956	T			200	
8/8	A			200	25 off mouth
1957	T			500	
7/26	A				500 off mouth
8/7	A				200 off mouth. None in creek
1958	T			0	
8/7	A 13.0			0	None off mouth. To source
8/27	A			0	Char or pinks off mouth
1959	T			800	
7/14	A				800 off mouth. None in creek
8/10	A			50	500 off mouth. 2,000 beach spawners north of mouth

A 26.2 YOUTH CREEK (Lake Aleknagik)

SUMMARY OF SURVEYS

Date		Method & distance	Live	Dead	Total	Remarks
1960						No surveys
1961		T			10	
	8/9	A 0.25			0	10 off mouth. Water very high
1962		T			21	
	8/6	G	21	0		500 off mouth. Water very low. All creek fish within 100 yards of mouth. 4 chums

A 28.3 SUNSHINE CREEK (Lake Aleknagik)

LOCATION: 59°27'36" N. 159°03'12" W.

PREVIOUS NAMES OR NUMBERS:

U.S.G.S. MAP: Goodnews, Alaska, 1:250,000, 1951

PHYSICAL DESCRIPTION

TOTAL LENGTH: 15 miles

LENGTH ACCESSIBLE TO SALMON: 15 miles

AVERAGE WIDTH: 90' RANGE: 60'-120'

AVERAGE DEPTH: 2' RANGE: 1.8'-12' (Midstream)

TOTAL ACCESSIBLE SPAWNING AREA: 163.6 acres

POTENTIAL SPAWNING AREA: 83%; 135.8 acres

BOTTOM QUALITY: 60% gravel, 40% sand

WATERSHED: 45.0 square miles. Drains long low mountain valley. Some sunken logs in creek.

GRADIENT:

WATER VELOCITY: Average = 2.8 fps.
Range = 2.0-4.0 fps.

FLOW: 390 cfs. (Aug. 28, 1961). Normal fall level. Flow station one-half mile upstream. RANGE:

AIR TEMPERATURE: Not observed.

WATER TEMPERATURE: 8.0° C. (Aug. 28, 1961)

POOLS AND RIFFLES: Many very deep pools near cut banks.

A 28.3 SUNSHINE CREEK (Lake Aleknagik)

RED SALMON RUNS

PERCENT OF TOTAL ESCAPEMENT: 0.39%

ESCAPEMENT RANGE: 500-25,000

TIME OF OCCUPANCY: July 20-Aug. 28

PEAK OF SPAWNING: Aug. 16

DISTRIBUTION OF SPAWNERS: Fish usually scattered to 7 miles upstream. In 1956 and 1957, observed salmon in spring ponds at end of south fork.

GENERAL INFORMATION

SHELTER: John Pearson's scow at mouth of Agulowak River.

SURVEY ROUTES AND METHODS: Ground surveys in earlier years, normally aerial surveys in later years.

PERSONAL-USE FISHERY: Some observed (1962).

FISH SPECIES: Chums, char, pinks, kings.

WILDLIFE SPECIES: Brown bear, bald eagle.

REMARKS: Capable of large runs but limited by floods and shifting streambed.

A 28.3 SUNSHINE CREEK (Lake Aleknagik)

SUMMARY OF SURVEYS

Date	Method & distance	Live	Dead	Total	Remarks
1946	T			3,500	
8/5	G 4.5			2,117	3,500 or 800 off mouth. Two separate estimates
1947	T			629	
8/11	G 2.0			629	Few off mouth. To island
8/22	G				Few fish. Equal live and dead
1948	T			1,000	
8/16	G 2.0		236		Many live. 172 measurements; 30 scales
1949	T			500	
8/7	G 2.0			500	None off mouth
8/14	G				Very poor run
8/27	G				Flooding
1950	T			5,500	
8/16	G			1,839	Estimated 1/3 of population. 76 ♂, 31 ♀ measurements
1951	T			1,500	
8/20	G 5.0			1,084	Estimated maximum of 1,500. 63 ♂, 94 ♀ measurements
1952	T			1,000	
8/25	A			10	
8/28	G 1.0			192	

A 28.3 SUNSHINE CREEK (Lake Aleknagik)

SUMMARY OF SURVEYS

Date	Method & distance	Live	Dead	Total	Remarks
1953	T			10,000	
7/24	A			8,000	Surveyed to Pick Creek divide
7/24	G			1,200	1,500-2,500 off mouth. To first log jam
8/9	G	0	Few		500 off mouth. High water
8/13					Flooding. One big school off mouth
1954	T			1,500	
7/25	A			200-500	1,000 off mouth. 1 mile section, 2-3 miles up
8/4	A 1.0			200	500 off mouth
8/17	G 0.4			185	20 ♂, 59 ♀ measurements
1955	T			25,000	
8/19	A			25,000	Peak of spawning. Few fish dead
1956	T			3,000	
8/8	A			1,250	1,000 off mouth. To divide
8/29	A			1,000	300 fish in south terminal pond
1957	T			850	
7/26	A			750	
8/7	A			100	In terminal pond. Small run in creek

A 28.3 SUNSHINE CREEK (Lake Aleknagik)

SUMMARY OF SURVEYS

Date	Method & distance	Live	Dead	Total	Remarks
1958	T			1,100	
8/7	A			800	300 off mouth. Scattered
8/27	A			0	
1959	T			5,000	
7/14	A				750 off mouth
8/10	A 15.0			2,000	3,000 off mouth
1960	T			2,000	
8/9	A			2,000	
1961	T			3,000	
8/6	A			3,000	
8/28	G				Just past flooding. Many fish washed out. 9 ♂, 20 ♀ scales and measurements
1962	T			1,100	
8/9	A			1,100	
8/11	G 2.0	569	12		

A 55.6 HAPPY CREEK (Lake Aleknagik)

LOCATION: 59°20'00" N. 158°43'12" W.

PREVIOUS NAMES OR NUMBERS:

U.S.G.S. MAP: Dillingham, Alaska, 1:250,000, 1951

PHYSICAL DESCRIPTION

TOTAL LENGTH: 4 miles

LENGTH ACCESSIBLE TO SALMON: 4 miles

AVERAGE WIDTH: 10' RANGE: 7'-22'

AVERAGE DEPTH: 10" RANGE: 6"-30"

TOTAL ACCESSIBLE SPAWNING AREA: 4.85 acres

POTENTIAL SPAWNING AREA: 80%; 3.88 acres

BOTTOM QUALITY: 90% gravel, 10% mud

WATERSHED. 4.5 square miles. Long brushy, drainage creek arising near source of Fenno Creek. Draining through flat valley alongside Jacknife Mountain. Numerous logs in creek, but no serious obstructions.

GRADIENT:

WATER VELOCITY: Average = 3.0 fps.
Range = 2.5-4.0 fps.

FLOW: 34.5 cfs. (Aug. 11, 1960). Medium water level. Flow station is 200 yards up from mouth. RANGE:

AIR TEMPERATURE: 13.3° C. (Aug. 11, 1960)

WATER TEMPERATURE: 7.8° C (Aug. 11, 1960)

POOLS AND RIFFLES: Numerous pools behind logs and fallen trees approximately every 75 feet.

A 55.6 HAPPY CREEK (Lake Aleknagik)

RED SALMON RUNS

PERCENT OF TOTAL ESCAPEMENT: 0.33%

ESCAPEMENT RANGE: 186-11,304

TIME OF OCCUPANCY: July 18-Aug. 15

PEAK OF SPAWNING: Aug. 7

DISTRIBUTION OF SPAWNERS: Spawning reduced greatly above first 2 miles.

GENERAL INFORMATION

SHELTER: FRI cabin at Mosquito Point.

SURVEY ROUTES AND METHODS: Ground surveys in earlier years, aerial surveys in later years.

PERSONAL-USE FISHERY: Not extensive.

FISH SPECIES: Arctic char.

WILDLIFE SPECIES: Brown bear, bald eagle, beaver.

REMARKS: Spawning reduced greatly above first 2 miles.

A 55.6 HAPPY CREEK (Lake Alekmagik)

SUMMARY OF SURVEYS

Date	Method & distance	Live	Dead	Total	Remarks
1946	T			11,304	
8/7	G	6,358	4,919		5,000-6,000 off mouth. 43 ♂, 57 ♀ measurements; 31 scales
1947	T			560	
8/1	G 0.2	175	63		45 ♂, 59 ♀ measurements; 15 ♂, 15 ♀ scales
8/8	G 1.0	268	292		
1948	T			186	
8/14	G 0.75	41	145		32 ♂, 64 ♀ measurements; 30 scales
1949	T			1,996	
8/6	G 1.25	147	29		
8/10	G 1.25			127	23 ♂, 44 ♀ measurements; 20 ♂, 20 ♀ scales
8/15	G 0.2	127	194		48 ♂, 84 ♀ measurements
8/23	G			176	Lower area of creek only
1950	T			2,405	
7/27	G 0.2	176	10		
8/7	G	452	559		Surveyed to head of spawning. 101 ♂, 101 ♀ measurements; 20 ♂, 20 ♀ scales
1951	T			2,477	
8/7	G	1,194	551		Water high. Estimated 4,000 fish. 100 ♂, 100 ♀ measurements; 20 ♂, 20 ♀ scales

A 55.6 HAPPY CREEK (Lake Aleknagik)

SUMMARY OF SURVEYS

Date	Method & distance	Live	Dead	Total	Remarks
1952	T			721	
7/31	G	445	59		Water high and muddy. Few fish
8/11	G				73 ♂, 107 ♀ measurements; 20 ♂, 20 ♀ scales
1953	T			1,948	
7/18	G	41	0		Lower area only
7/21	G	707	3		Lower area only
7/27	G	709	182		Lower area only. 27 ♂, 49 ♀ measurements; 20 ♂, 20 ♀ scales
7/29	G	684	325		Surveyed to middle area of creek. 73 ♂, 60 ♀ measurements; 20 ♂, 20 ♀ scales
1954	T			4,118	
7/25	G			1,340	Surveyed to middle of creek. 124 measurements; 40 scales
7/30	G			2,876	500 off mouth. Surveyed to middle of creek. 77 measurements.
8/1	G			3,305	Surveyed to middle of creek
8/7	G			4,118	Surveyed to the middle of creek
1955	T			4,000	
8/7	A			3,000-4,000	500-1,000 off mouth. 101 ♂, 82 ♀ measurements; 20 ♂, 20 ♀ scales

A 55.6 HAPPY CREEK (Lake Aleknagik)

SUMMARY OF SURVEYS

Date	Method & distance	Live	Dead	Total	Remarks
1956	T			5,703	
7/16	G			473	1,500 off mouth. Surveyed to middle of creek
8/2	A				400 off mouth
8/5	G			4,537	200 off mouth. Average count to middle area of creek
1957	T			3,551	
7/25	G 0.25	657	82		100 off mouth
7/30	G	1,116	1,935		300 off mouth. 20 ♂, 20 ♀ scales and measurements
7/31	G				100 ♂, 100 ♀ measurements; 80 ♂, 80 ♀ scales
8/4	A				300 off mouth
8/8	A				200 off mouth
1958	T			968	
8/8	G			968	To head of spawning. 19 ♂, 44 ♀ measurements; 19 ♂, 20 ♀ scales
8/19	G				55 ♂, 70 ♀ measurements; 55 ♂, 60 ♀ scales
1959	T			3,000	
7/14	A				1,500 off mouth
8/3	G	2,454	180		105 ♂, 40 ♀ measurements; 60 ♂, 40 ♀ scales

A 55.6 HAPPY CREEK (Lake Aleknagik)

SUMMARY OF SURVEYS

Date	Method & distance	Live	Dead	Total	Remarks
1959					
8/8	G				62 ♀ measurements; 20 ♀ scales
8/10	A			3,000	1,000 off mouth
1960	T			653	
8/11	G			653	Prior to peak. Later than normal. 48 ♂, 106 ♀ measurements; 48 ♂, 100 ♀ scales
1961	T			800	
8/5	G				Approximate peak of spawning. 26 ♂, 100 ♀ measurements; 26 ♂, 60 ♀ scales
1962	T			650	
8/4	A 4.0			650	
8/7	G				Water level low. 4 ♂, 16 ♀ scales and measurements

A 57.0 HANSEN CREEK (Lake Aleknagik)

LOCATION: 59°19'42" N. 158°41'48" W.

PREVIOUS NAMES OR NUMBERS:

U.S.G.S. MAP: Dillingham, Alaska, 1:250,000, 1951

PHYSICAL DESCRIPTION

TOTAL LENGTH: 1.3 miles

LENGTH ACCESSIBLE TO SALMON: 1.3 miles

AVERAGE WIDTH: 13' RANGE: 6'-20'

AVERAGE DEPTH: 4" RANGE: 2"-12" (Midstream)

TOTAL ACCESSIBLE SPAWNING AREA: 2.05 acres

POTENTIAL SPAWNING AREA: 100%; 2.05 acres

BOTTOM QUALITY: 100% small gravel

WATERSHED: 1.0 square mile. Creek surrounded by small trees throughout its entire length. East and west forks originate from spring fed ponds; some other springs also present. No obstructions in creek itself, but west fork beaver dam may form blockage to pond spawners.

GRADIENT:

WATER VELOCITY: Average = 2.3 fps.
Range = 2.0-2.5 fps.

FLOW: 8.0 cfs. (Aug. 12, 1946). Medium-low water level. RANGE:
8.95 cfs. (Aug. 9, 1960). Medium water level. Flow station at mouth.

AIR TEMPERATURE: 14.4° C. (Aug. 9, 1960)

WATER TEMPERATURE: 8.9° C. (Sept. 2, 1946 and Aug. 9, 1960); 10.1° C. (Aug. 4, 1962)

POOLS AND RIFFLES: No pools except beaver ponds on either branch.

A 57.0 HANSEN CREEK (Lake Aleknagik)

RED SALMON RUNS

PERCENT OF TOTAL ESCAPEMENT: 0.45%

ESCAPEMENT RANGE: 700-12,808

TIME OF OCCUPANCY: July 17-Aug. 29

PEAK OF SPAWNING: Aug. 7

DISTRIBUTION OF SPAWNERS: Spawning throughout entire length of creek. In recent years main spawning shifted distinctly upstream.

GENERAL INFORMATION

SHELTER: FRI cabin at Mosquito Point.

SURVEY ROUTES AND METHODS: Ground surveys in earlier years, aerial surveys in later years.

PERSONAL-USE FISHERY: Not extensive.

FISH SPECIES: Arctic char (young).

WILDLIFE SPECIES: Brown bear, bald eagle, beaver.

REMARKS: Hansen Creek has small uniform gravel excellent for spawning. Water very shallow at mouth, making ascending salmon easy prey of seagulls.

A 57.0 HANSEN CREEK (Lake Aleknagik)

SUMMARY OF SURVEYS

Date	Method & distance	Live	Dead	Total	Remarks
1946	T				No counts
8/12	G				Large schools entering mouth. High percent dead
9/2	G				Many fish long dead
1947	T			1,365	
8/1	G	455	644		Most spawning lower 2/3 of creek. 87 measurements; 27 scales
8/3	G	597	724		
8/6	G	507	694		
8/8	G	418	941		113 measurements
1948	T			798	
8/13	G	35	763		Few fish. Early spawning. 57 ♂, 67 ♀ measurements; 15 ♂, 15 ♀ scales
1949	T			794	
8/1	G				84 measurements; 10 ♂, 10 ♀ scales
8/4	G				70 measurements
8/7	G				40 measurements
8/10	G				10 measurements
1950	T			2,275	
7/26	G	52	195		

A 57.0 HANSEN CREEK (Lake Aleknagik)

SUMMARY OF SURVEYS

Date	Method & distance	Live	Dead	Total	Remarks
1950					
7/27	G	928	288		New wave of fresh fish
7/30	G	1,127	291		300-400 off mouth. 20 ♂, 30 ♀ scales and measurements
8/4-5	G	1,454	721		< 100 off mouth. 60 ♂, 70 ♀ scales and measurements
8/14	G				20 ♂ scales and measurements. Most fish long dead
1951	T			2,545	
7/30	G	1,632	252		Near peak. 51 ♂, 78 ♀ scales and measurements
8/4	G	1,415	980		150 off mouth. Well past peak. 49 ♂, 22 ♀ scales and measurements
8/8	G				New wave fresh spawners. 53 ♂, 37 ♀ measurements
1952	T			941	
7/28	G	348	106		
7/29	G	194	100		30 ♂, 85 ♀ scales and measurements
1953	T			1,441	
7/27	G	131	96		17 ♂, 36 ♀ measurements; 17 ♂, 20 ♀ scales
7/28	G	186	115		24 ♂, 20 ♀ measurements; 23 ♂, 20 ♀ scales

A 57.0 HANSEN CREEK (Lake Aleknagik)

SUMMARY OF SURVEYS

Date	Method & distance	Live	Dead	Total	Remarks
1953					
8/3	G	385	541		60 ♂, 60 ♀ scales and measurements
8/6	G	432	737		
1954	T			9,040	
7/26	G			599	500 off mouth. 23 ♂, 41 ♀ measurements; 62 scales
7/28	G			2,002	500 off mouth
7/29	G			2,978	300-500 off mouth. 78 ♂, 60 ♀ measurements; 138 scales
8/1	G			3,919	300-500 off mouth
8/5	G			6,694	500 off mouth
8/15	G			8,840	100-200 off mouth. 212 ♂, 243 ♀ measurements
1955	T			12,808	
7/17	G			21	
7/21 a.m.	G	728	0		Surveyed for 400 feet
7/21 p.m.	G	819	1		To forks
7/22	G 1.3			1,100	To upper dam
7/24	G 1.3	1,436	37		600 off mouth
7/25	G			2,376	400 off mouth
7/27	G 1.3	3,030	194		
7/28	G 1.3			3,200	

A 57.0 HANSEN CREEK (Lake Aleknagik)

SUMMARY OF SURVEYS

Date	Method & distance	Live	Dead	Total	Remarks
1955					
8/3	G 1.3	5,668	389		Several hundred off mouth
8/8	G	9,892	1,916		500 off mouth. 100 ♂, 100 ♀ scales and measurements
1956	T			7,400	
7/30	G			1,135	500-800 off mouth
8/2	G	1,120	689		500 off mouth. 100 ♂, 100 ♀ scales and measurements
8/28	A			7,000-8,000	
8/29	A	300-400	5,000-7,000		
1957	T			725	
7/25	G			0	66-76 off mouth
7/29	G	567	100		Mouth of creek improved, fish then entered
7/30	G	389	105		
7/31	A			100-200	100 off mouth
8/3	G			514	200 off mouth. 111 ♂, 101 ♀ measurements; 86 ♂, 95 ♀ scales
8/8	A			700	25 off mouth
8/10	G	5			93 ♂, 100 ♀ measurements; scales from .2 fish only

A 57.0 HANSEN CREEK (Lake Aleknagik)

SUMMARY OF SURVEYS

Date	Method & Distance		Live	Dead	Total	Remarks
1958	T				3,370	
8/6	G					8 ♂, 20 ♀ scales, measurements and otoliths
8/7	A				1,600	50 off mouth
8/9	G		2,000	1,200		Estimated 40-50 in ponds. 100 ♂, 100 ♀ scales and measurements
1959	T				10,000	
7/14	A				0	1,000 off mouth
7/27	G	1.3	2,944	504		1,000-1,500 off mouth
7/31	G	1.3	4,201	1,095		1,000 off mouth. 105 ♂, 105 ♀ measurements
8/10	A				6,000	400 off mouth
8/11	A				10,000	
1960	T				2,900	
8/9	G				2,875	Most spawning in upper area. 103 ♂, 100 ♀ measurements; 100 ♂, 100 ♀ scales; 48 ♂, 42 ♀ otoliths
8/9	A				2,900	
1961	T				700	
8/6	G		159	450		100 ♂, 100 ♀ scales and measurements; 60 ♂, 60 ♀ otoliths
8/6	A				700	

A 57.0 HANSEN CREEK (Lake Aleknagik)

SUMMARY OF SURVEYS

Date	Method & distance	Live	Dead	Total	Remarks
1962	T			4,529	
8/4	A 1.3			3,860	
8/8	G 1.3			4,529	300-400 off mouth. 100 ♂, 100 ♀ scales, measurements and otoliths

A 64.8 MISSION CREEK (Lake Aleknagik)

LOCATION: 59°17'00" N. 158°35'00" W.

PREVIOUS NAMES OR NUMBERS:

U.S.G.S. MAP: Dillingham, Alaska, 1:250,000, 1951

PHYSICAL DESCRIPTION

TOTAL LENGTH: 1 mile

LENGTH ACCESSIBLE TO SALMON: 1 mile

AVERAGE WIDTH: 5' RANGE:

AVERAGE DEPTH: 4" RANGE:

TOTAL ACCESSIBLE SPAWNING AREA: 0.61 acre

POTENTIAL SPAWNING AREA: 60%; 0.37 acre

BOTTOM QUALITY: Mostly rocky in the lower steep section, but good fine gravel in upper section of creek.

WATERSHED: Flows from spring area 0.75 mile from Lake Aleknagik through a narrow steep canyon.

GRADIENT:

WATER VELOCITY:

FLOW: RANGE:

AIR TEMPERATURE:

WATER TEMPERATURE:

POOLS AND RIFFLES: Lower section of creek composed mainly of riffles.

A 64.8 MISSION CREEK (Lake Aleknagik)

RED SALMON RUNS

PERCENT OF TOTAL ESCAPEMENT:

ESCAPEMENT RANGE: 100-1,030

TIME OF OCCUPANCY: Aug. 1-Aug. 15

PEAK OF SPAWNING: Aug. 10

DISTRIBUTION OF SPAWNERS: Most spawning in upper section of creek where springs are present. Few fish spawn in lower creek.

GENERAL INFORMATION

SHELTER: FRI cabin at Mosquito Point.

SURVEY ROUTES AND METHODS: Usually aerial surveys.

PERSONAL-USE FISHERY: Mission creek spawners probably caught by natives in Wood River.

FISH SPECIES: None observed.

WILDLIFE SPECIES: Brown bear.

REMARKS:

A 64.8 MISSION CREEK (Lake Aleknagik)

SUMMARY OF SURVEYS

Date	Method & distance	Live	Dead	Total	Remarks
1946-53					No surveys
1954	T			1,030	
1955	T			650	
1956-57					No surveys
1958	T			400	
1959	T			1,000	
8/11	A			1,000	
1960	T			500	
8/9	A			500	
1961	T			100	
8/6	A			100	
1962	T			980	
8/3	A			980	
8/9	G 1.0			774	300-400 off mouth

N 0.0 AGULOWAK RIVER (Connecting Stream)

LOCATION: 59°24'36" N. 158°53'00" W.

PREVIOUS NAMES OR NUMBERS: 2d River

U.S.G.S. MAP: Dillingham, Alaska, 1:250,000, 1951

PHYSICAL DESCRIPTION

TOTAL LENGTH: 4 miles

LENGTH ACCESSIBLE TO SALMON: 4 miles

AVERAGE WIDTH: 200' RANGE: 200'-300'

AVERAGE DEPTH: RANGE: 1.6'-15' (Midstream)

TOTAL ACCESSIBLE SPAWNING AREA: 96.96 acres

POTENTIAL SPAWNING AREA: 75%; 72.72 acres

BOTTOM QUALITY: 20% gravel, 20% boulder, 60% rubble

WATERSHED: Approximately 1,000 square miles. Flows from River Bay of Lake Nerka in valley between two mountain ridges. Drains Lakes Kulik, Mikchalk, Beverley, Little Togiak, Grant, and Nerka. No obstructions.

GRADIENT:

WATER VELOCITY: Average = 3.2 fps.
Range = 1.5-4.0 fps.

FLOW: 1,500 cfs. (Aug. 11, 1962). Water level medium-low. Flow station at mouth. RANGE:

AIR TEMPERATURE: Not observed.

WATER TEMPERATURE: 11.4° C. (July 7, 1962); 13.9° C. (July 16, 1962); 15.1° C. (July 23, 1962); 16.7° C. (July 30, 1962); 16.4° C. (Aug. 6, 1962); 15.6° C. (Aug. 18, 1962).

POOLS AND RIFFLES: Several deep areas. Largest pool one-half way up from outlet to upper rollers.

N 0.0 AGULOWAK RIVER (Connecting Stream)

RED SALMON RUNS

PERCENT OF TOTAL ESCAPEMENT: 5.17%

ESCAPEMENT RANGE: 2,000-160,000

TIME OF OCCUPANCY: July 24-Sept. 25

PEAK OF SPAWNING: Aug. 28

DISTRIBUTION OF SPAWNERS: Particularly heavy spawning in upper section.

GENERAL INFORMATION

SHELTER: John Pearson's scow at mouth of Agulowak River.

SURVEY ROUTES AND METHODS: Ground surveys in earlier years, aerial surveys in later years.

PERSONAL-USE FISHERY: Consistent native fishery at mouth of river.

FISH SPECIES: Kings, pinks, chums, silvers, grayling, Arctic char, rainbow trout.

WILDLIFE SPECIES: Brown bear, bald eagle.

REMARKS: Excellent area with very high potential. Spawning spread in gravel pockets throughout river.

SUMMARY OF SURVEYS

Date	Method & distance	Live	Dead	Total	Remarks
1946	T			30,000	
8/14	G			10,000-15,000	In River Bay at head
9/20	G				Many still in upper river. 42 ♂, 74 ♀ measurements
1947	T			50,000	
8/22	G			3,000	More fish than 1946
9/10	G		1,014		54 ♂, 79 ♀ measurements; 30 ♂, 30 ♀ scales. Many more fish than 1946
9/15	G				Spawning nearly over
1948	T			30,000	
8/18	G				49 ♂, 43 ♀ measurements
8/24	G				Full of reds
9/6	G				100 ♂, 105 ♀ measurements; 90 scales
1949	T			2,000	
8/14	G			50	Seen in trip up river
9/2-	G			500	1/4-1/3 of total population
9/14	G	162	500		39 ♂, 116 ♀ measurements; 20 ♂, 20 ♀ scales. Observed on trip down
1950	T			8,000	
8/2	G				Many migrating upstream
9/1	G				100 ♂, 100 ♀ measurements; 20 ♂, 20 ♀ scales. Better than 1949

N 0.0 AGULOWAK RIVER (Connecting Stream)

SUMMARY OF SURVEYS

Date	Method & distance	Live	Dead	Total	Remarks
1951	T			10,000	
8/22	G			10,000	Conservative estimate
9/7	G				100 ♂, 100 ♀ measurements; 20 ♂, 20 ♀ scales. Larger run than 1950
1952	T			8,000	
8/5	G			0	
9/5	G				100 ♂, 100 ♀ measurements; 40 ♂, 40 ♀ scales. Most live fish spent
1953	T			80,000	
9/1	G				100 ♂, 100 ♀ scales and measurements
9/2	A			75,000	Minimum estimate. Best yet observed
9/10	G				Great concentration of dead
9/16	G				Heavy concentration of dead off mouth
1954	T			10,000	
8/18	G				Fair numbers of reds and pinks
9/8	A			10,000	
9/20	G				Ground estimate of dead 1/10 of 1953. 161 ♂, 141 ♀ measurements; 60 ♂, 60 ♀ scales

AGULOWAK RIVER (Connecting Stream)

SUMMARY OF SURVEYS

Date	Method & distance	Live	Dead	Total	Remarks
1955	T			160,000	
8/3	G			3,600	Above bedrock by cabin at head of river
8/7	A			68,000	Migrating fish
9/1	A			200,000	About 2 times as large as 1953 run. 1,000 off mouth
9/14	G				Most in upper section and dead
9/16	G				100 ♂, 100 ♀ scales and measurements
9/20	G	5,000	30,000		
1956	T			82,000	
7/22	A			3,000-4,000	Moving up
8/2	G			2,000	3,000-4,000 off mouth
8/9	A			15,000-20,000	15,000-20,000 off mouth. 6,000 of these in River Bay
8/29	G			70,000	10,000 of these in River Bay
8/31	A			60,000-70,000	500 off mouth. 11,000 of these in River Bay
9/11	A			24,000	14,300 fish dead in section from mouth to rollers
9/14	G				128 ♂, 145 ♀ measurements; 60 ♂, 60 ♀ scales
9/14	G				60 ♂, 200 ♀ measurements; 60 ♂, 60 ♀ scales

N 0.0 AGULOWAK RIVER (Connecting Stream)

SUMMARY OF SURVEYS

Date	Method & distance	Live	Dead	Total	Remarks
1956					
9/27	G				Most dead washed out. 26 ♂ measurements
1957	T			45,000	
8/4	A			4,000	5,000 off mouth
8/8	A			8,000	15,000 off mouth
8/30	A			45,000	12,000 of these in River Bay
9/6	G				206 ♂, 110 ♀ measurements; 100 ♂, 100 ♀ scales. Mostly .3 fish
9/17	G				47 ♂, 126 ♀ measurements
1958	T			20,000	
8/7	G			1,200	Mostly at head and mouth
8/27	G			9,500	5,000 of these in River Bay
9/5	G				206 ♂, 204 ♀ measurements; 274 scales. 70 otoliths taken from .3 fish at mouth
9/8	G			20,000	10,000 of these in River Bay
1959	T			100,000	
7/14	A			30,000	Migrating up river
8/10	A			172,000	100,000 of these in River Bay
8/27	A			100,000	Visibility poor

N 0.0 AGULOWAK RIVER (Connecting Stream)

SUMMARY OF SURVEYS

Date	Method & distance	Live	Dead	Total	Remarks
1959					
8/31	G				Near mouth. 50% .3 fish. 126 ♂, 52 ♀ measurements; 69 ♂, 40 ♀ scales
9/2	A			100,000	Visibility good
9/6	G				All of sample taken from only the above upper rollers. 85 ♂, 159 ♀ measurements; 60 ♂, 60 ♀ scales
1960	T			37,000	
8/28	A			37,000	
9/7	G				200 ♂, 200 ♀ measurements; 100 ♂, 100 ♀ scales; 50 ♂, 50 ♀ otoliths
1961	T			100,000	
8/29	A			100,000	
9/5-6	G				200 ♂, 200 ♀ scales and measurements; 100 ♂, 100 ♀ otoliths
1962	T			17,180	
8/30	A 4.0			17,180	
9/10					100 ♂, 100 ♀ scales, measurements and otoliths. Run later than usual

N 11.6 PORTAGE CREEK (Lake Nerka)

LOCATION: 59°28'24" N. 158°53'00" W.

PREVIOUS NAMES OR NUMBERS:

U.S.G.S. MAP: Dillingham, Alaska, 1:250,000, 1951

PHYSICAL DESCRIPTION

TOTAL LENGTH: 1.3 miles

LENGTH ACCESSIBLE TO SALMON: 1.3 miles (Varies depending on beaver dam)

AVERAGE WIDTH: 9.1' RANGE: 8.4'-9.5'

AVERAGE DEPTH: 8" RANGE: 6"-12"

TOTAL ACCESSIBLE SPAWNING AREA: 1.43 acres

POTENTIAL SPAWNING AREA: 85%; 1.26 acres

BOTTOM QUALITY: Good gravel in creek.

WATERSHED: Flows through forested area to Lake Nerka. Beaver dams in lower creek cause blockage in some years.

GRADIENT:

WATER VELOCITY:

FLOW: RANGE:

AIR TEMPERATURE:

WATER TEMPERATURE: 10.8° C. (Aug. 25, 1960)

POOLS AND RIFFLES:

N 11.6 PORTAGE CREEK (Lake Nerka)

RED SALMON RUNS

PERCENT OF TOTAL ESCAPEMENT: <0.01%

ESCAPEMENT RANGE: 0-3,300

TIME OF OCCUPANCY: Aug. 1-Aug. 25

PEAK OF SPAWNING: Aug. 12

DISTRIBUTION OF SPAWNERS: Mainly in lower sections of creek due to beaver dam blockage.

GENERAL INFORMATION

SHELTER: FRI Lake Nerka cabin.

SURVEY ROUTES AND METHODS: Usually ground surveys.

PERSONAL-USE FISHERY: None observed.

FISH SPECIES: None observed.

WILDLIFE SPECIES: Brown bear.

REMARKS: Apparently good spawning prior to 1949, after which extensive beaver dams limited fish to poor mouth area.

N 11.6 PORTAGE CREEK (Lake Nerka)

SUMMARY OF SURVEYS

Date	Method & distance	Live	Dead	Total	Remarks
1946	T			406	
8/16	G	184	222		500-600 off mouth. Partial beaver dam blockage
1947	T			1,309	
9/15	G		1,309		Fish of small size
1948	T			3,300	
9/4	G			2,700-3,300	
1949	T			0	
8/15				0	
9/26				0	
1950	T			2	
8/7	G		2		Surveyed to dam 150 yards upstream
1951	T			37	
8/11	G	25	12		20 off mouth
8/19	G				No additional fish have entered
1952	T			160	
8/10	G	144	16		None off mouth. Surveyed to dam where total blockage occurred
1953	T			194	
8/3	G	79	21		To large rock in midstream

N 11.6 PORTAGE CREEK (Lake Nerka)

SUMMARY OF SURVEYS

Date	Method & distance	Live	Dead	Total	Remarks
1953					
8/21	G	21	173		Surveyed to large rock in midstream. 28 ♂, 91 ♀ measurements; 20 ♂, 20 ♀ scales
1954-55					No surveys
1956	T			350	
8/9	G				50 off mouth
8/25	G			350	8 ♂, 69 ♀ measurements
1962	T			60	
8/25	G 0.5	0	60		10 days past peak of spawning

N 20.4 PICK CREEK (Lake Nerka)

LOCATION: 59°33'00" N. 159°04'18" W.

PREVIOUS NAMES OR NUMBERS:

U.S.G.S. MAP: Goodnews, Alaska, 1:250,000, 1951

PHYSICAL DESCRIPTION

TOTAL LENGTH: 2.5 miles

LENGTH ACCESSIBLE TO SALMON: 2.5 miles

AVERAGE WIDTH: 15' RANGE: 12'-35'

AVERAGE DEPTH: 18" RANGE: 12"-42"

TOTAL ACCESSIBLE SPAWNING AREA: 4.55 acres

POTENTIAL SPAWNING AREA: 90%; 4.10 acres

BOTTOM QUALITY: 80% gravel, 10% sand, 10% mud

WATERSHED: 4.5 square miles. Flows from a series of spring ponds through flat valley of tundra, beaver ponds, and grass. Occasionally temporary beaver dams across creeks. Usually no blockage.

GRADIENT:

WATER VELOCITY: Average = 2.3 fps.
Range = 1.5-3.0 fps.

FLOW: 22.4 cfs. (Aug. 6, 1960). Medium water level. Flow station at mouth. RANGE:

AIR TEMPERATURE: 12.8° C. (Aug. 6, 1960)

WATER TEMPERATURE: 8.3° C. (Aug. 6, 1960)

POOLS AND RIFFLES: Many small deep areas against cut banks.

N 20.4 PICK CREEK (Lake Nerka)

RED SALMON RUNS

PERCENT OF TOTAL ESCAPEMENT: 1.32%

ESCAPEMENT RANGE: 357-85,000 (Includes ponds)

TIME OF OCCUPANCY: July 25-Sept. 2

PEAK OF SPAWNING: Aug. 10

DISTRIBUTION OF SPAWNERS: Spawning always to ponds, sometimes 0.75 mile past ponds if no beaver dams. Most spawning usually in ponds.

GENERAL INFORMATION

SHELTER: FRI Lake Nerka cabin.

SURVEY ROUTES AND METHODS: Ground surveys in earlier years, aerial and ground surveys in later years.

PERSONAL-USE FISHERY: None observed.

FISH SPECIES: Occasional chums.

WILDLIFE SPECIES: Brown bear, bald eagle, beaver.

REMARKS: Consistently good spawning in gravel areas between pools for entire length of creek. Good gravel areas above ponds when no beaver dam blockage. Main pond area contains 63,500 square feet of spawning area, while Pond No. 8 has 7,500 square feet.

N 20.4 PICK CREEK (Lake Nerka)

SUMMARY OF SURVEYS

Date	Method & distance	Live	Dead	Total	Remarks
1946	T			58,254	
8/17	G	47,532	10,722		49 ♂, 51 ♀ measurements. Estimated 18,254 in creek; an additional 40,000 in ponds
1947	T			8,125	
8/2	G			4,300	Estimated 2,800 in creek, 1,500 in ponds
8/17	G			5,000-6,000	100 ♂, 100 ♀ measurements; 30 ♂, 20 ♀ scales. Samples from main ponds only
1948	T			7,659	
8/31	G				100 ♂, 102 ♀ measurements; 98 ♂, 100 ♀ scales. Probably pond sample
1949	T			357	
8/17	G	177	63		50 off mouth. 1 ♂, 7 ♀ scales and measurements
9/5	G	3	58		3 ♂, 10 ♀ scales and measurements
1950	T			3,913	
8/3-5	G			2,000	101 ♂, 100 ♀ measurements; 20 ♂, 20 ♀ scales. Samples from pond only
1951	T			4,652	
8/5	G		1,400		Rough pond estimate while doing experiment
8/8	G				29 ♂, 33 ♀ measurements

SUMMARY OF SURVEYS

Date	Method & distance		Live	Dead	Total	Remarks
1951						
8/14						100 ♂, 100 ♀ measurements and scales
1952	T				2,429	
7/25	G				77	Mouth to study area
7/29	G				179	Lower beaver dam to mouth
8/7	G	2.5	1,839	8		Springs and main creek. Peak of spawning. 32 ♂, 95 ♀ scales and measurements
8/9	G				1,200-1,500	Spring area only. 19 ♂, 5 ♀ scales and measurements
1953	T				2,537	
7/24	G					3,000-5,000 off mouth. Few in creek, none in ponds
7/25	G		262	0		In ponds
8/2	G		275	0		In ponds. Starting to spawn
8/6	G		300	0		In ponds
8/11	G	2.5		Few	2,048	Creek and ponds. 1,041 in ponds alone
8/17	G					None off mouth. 64 ♂, 56 ♀ scales and measurements. Past peak. Measurements in ponds only
8/23	G				963	41 ♂, 44 ♀ measurements; 40 ♂, 40 ♀ scales. Count from pond area. Measurements from the creek. Most fish spawned

N 20.4 PICK CREEK (Lake Nerka)

SUMMARY OF SURVEYS

Date	Method & distance	Live	Dead	Total	Remarks
1954	T			3,207	
8/11	G 2.5			3,207	None off mouth
8/27	G				82 ♂, 75 ♀ scales and measurements
1955	T			13,200	
7/26	G			4,500	3,000 off mouth. Estimate 1,500 below dam
8/18	G 2.5			12,000-14,000	3,000 off mouth. 4,000 in ponds, 8,000 in creek
8/21	G 2.5			13,200	
8/24	G			500	Creek only
9/20	G		2,500		100 ♂, 100 ♀ scales and measurements
1956	T			10,000	
7/22	A				4,000-6,000 off mouth
7/28	G				4,000-5,000 off mouth
8/1	G				600 off mouth
8/2	A				2,000 off mouth
8/6	G				500-800 off mouth
8/8	A			5,000-7,000	1,100 off mouth
8/13	G				300 off mouth
8/17	G 2.5			10,000	
8/29	A	2,000	3,000		100 ♂, 100 ♀ scales and measurements

PICK CREEK (Lake Nerka)

SUMMARY OF SURVEYS

Date	Method & distance	Live	Dead	Total	Remarks
1957	T			4,500	
7/26	A			50	3,000-4,000 off mouth. In ponds
8/7	A			3,000-4,000	1,000 off mouth. In ponds
8/8	A 2.5			4,200	100 off mouth
8/17	G 2.5			4,500	201 ♂, 108 ♀ measurements; 100 ♂, 100 ♀ scales
8/28	G				75 ♀ measurements from lower creek
1958	T			7,100	
8/7	A 2.5			5,600	Estimated 3,000 in ponds; 2,600 in creek
8/12	G			3,000	Pond estimate only. Peak of spawning. 109 ♂, 106 ♀ measurements; 100 ♂, 100 ♀ scales and otoliths
1959	T			85,000	
8/10	A 2.5			30,000	Estimated 15,000 in creeks; 15,000 in ponds
8/12	G			78,196	Estimated 35,000 of these in ponds. No count off mouth
8/13	G				107 ♂, 107 ♀ measurements; 80 ♂, 80 ♀ scales. Sample from ponds
8/17	G				103 ♂, 97 ♀ measurements from creek
1960	T			25,000	
8/9	A 2.5			25,000	Estimated 14,000 in ponds; 11,000 in creek

N 20.4 PICK CREEK (Lake Nerka)

SUMMARY OF SURVEYS

Date	Method & distance	Live	Dead	Total	Remarks
1960					
8/16	G				200 ♂, 200 ♀ scales and measurements; 100 ♂, 100 ♀ otoliths. Samples from pond only
8/22	G			14,000	Ponds and tributaries. No counts in creek
1961	T			4,500	
8/6	A 2.5			4,500	
8/13	G	780	315		Main ponds only. 170 ♂, 174 ♀ measurements; 100 ♂, 100 ♀ scales; 60 ♂, 60 ♀ otoliths
8/14, 22	G	1,012	291		89 ♂, 100 ♀ scales and measurements. Counts from dead on Aug. 22
1962	T			12,000	
7/30	G 2.5	4,007	0		2,000-5,000 off mouth
8/9	A 2.5			12,000	Creek and ponds
8/13	G				100 ♂, 100 ♀ scales, measurements and otoliths. Samples from ponds only
8/16	G				100 ♂, 100 ♀ scales and measurements. Samples from creek only

N 24.7 ELVA CREEK (Lake Nerka)

LOCATION: 59°35'36" N. 159°03'42" W.

PREVIOUS NAMES OR NUMBERS:

U.S.G.S. MAP: Goodnews, Alaska, 1:250,000, 1951

PHYSICAL DESCRIPTION

TOTAL LENGTH: 3.5 miles

LENGTH ACCESSIBLE TO SALMON: 3 miles

AVERAGE WIDTH: 15' RANGE: 10'-35'

AVERAGE DEPTH: 17" RANGE: 1'-3.5' (Midstream)

TOTAL ACCESSIBLE SPAWNING AREA: 5.45 acres

POTENTIAL SPAWNING AREA: 15%; 0.82 acre

BOTTOM QUALITY: 30% gravel, 50% rubble, 10% boulder, and 10% sand

WATERSHED: 12.7 square miles. Drains Alpine Lake through lateral moraine of willow, alder, cottonwood, and spruce. High falls approximately 3 miles upstream.

GRADIENT:

WATER VELOCITY: Average = 3.3 fps.
Range = 2.5-4.0 fps.

FLOW: 92.3 cfs. (July 31, 1960). High water level. Flow station 200 feet up from mouth. RANGE:

AIR TEMPERATURE: 12.2° C. (July 31, 1960); 15.0° C. (Aug. 29, 1962)

WATER TEMPERATURE: 12.4° C. (Aug. 24, 1962); 11.1° C. (July 31, 1960)

POOLS AND RIFFLES: Several small deep pools.

N 24.7 ELVA CREEK (Lake Nerka)

RED SALMON RUNS

PERCENT OF TOTAL ESCAPEMENT: 0.04%

ESCAPEMENT RANGE: 12-1,500

TIME OF OCCUPANCY: Aug. 6-Sept. 1

PEAK OF SPAWNING: Aug. 18

DISTRIBUTION OF SPAWNERS: Spawning to falls, although spawning greatly reduced above 1.5 miles.

GENERAL INFORMATION

SHELTER: FRI Lake Nerka cabin.

SURVEY ROUTES AND METHODS: Both aerial and ground surveys.

PERSONAL-USE FISHERY: None observed.

FISH SPECIES: None observed.

WILDLIFE SPECIES: Brown bear, bald eagle.

REMARKS: Good spawning gravel only in lower section. Large boulders in upper section.

ELVA CREEK (Lake Nerka)

SUMMARY OF SURVEYS

Date	Method & distance	Live	Dead	Total	Remarks
1946	T			100	
8/19	G	80-100	6		1,000-1,500 off mouth
1947	T			868	
8/20	G	694	174		To falls. Past peak of spawning. 19 ♂, 82 ♀ measurements; 15 ♂, 15 ♀ scales
1948	T			402	
9/1	G	4	298		17 ♂, 100 ♀ measurements; 15 ♂, 15 ♀ scales. From mouth to island
1949-50					No surveys
1951	T			50	
1952	T			100	
8/8	G			100	Surveyed to island
1953	T			183	
8/17	G	178	5		150-200 off mouth
1954	T			12	
8/28	G			12	Counts to pool
1955					No surveys
1956	T			200	
8/25	G			200	To island. 14 ♂, 74 ♀ measurements
1957	T			200	

N 24.7 ELVA CREEK (Lake Nerka)

SUMMARY OF SURVEYS

Date	Method & distance	Live	Dead	Total	Remarks
1958					No surveys
1959	T			1,500	
8/12	A			1,500	
8/18	G				104 ♂, 100 ♀ measurements; 100 ♂, 100 ♀ scales. To upper end of island
1960	T			1,000	
8/18	A			1,000	
8/30	G	69	253		600 off mouth. 23 ♂, 100 ♀ measurements; 21 ♂, 100 ♀ scales. 1/4 mile above island
1961	T			200	
8/6	A			200	
8/18	G				9 ♂, 2 ♀ measurements; 9 ♂, 2 ♀ scales
1962	T			330	
8/9	A			330	
8/24	G 0.5	121	24		

N 50.7 JOE CREEK (Lake Nerka)

LOCATION: 59°35'40" N. 158°54'00" W.

PREVIOUS NAMES OR NUMBERS:

U.S.G.S. MAP: Dillingham, Alaska, 1:250,000, 1951

PHYSICAL DESCRIPTION

TOTAL LENGTH: 4.8 miles

LENGTH ACCESSIBLE TO SALMON: 4.8 miles

AVERAGE WIDTH: 25'7" RANGE: 18'-33'

AVERAGE DEPTH: 13" RANGE: 3"-18"

TOTAL ACCESSIBLE SPAWNING AREA: 15.0 acres

POTENTIAL SPAWNING AREA: 80%; 12.0 acres

BOTTOM QUALITY: 50% gravel, 50% rubble

WATERSHED: Drains mountain valley.

GRADIENT:

WATER VELOCITY:

FLOW: RANGE:

AIR TEMPERATURE:

WATER TEMPERATURE:

POOLS AND RIFFLES: Mainly composed of riffles.

N 50.7 JOE CREEK (Lake Nerka)

RED SALMON RUNS

PERCENT OF TOTAL ESCAPEMENT:

ESCAPEMENT RANGE:

TIME OF OCCUPANCY:

PEAK OF SPAWNING:

DISTRIBUTION OF SPAWNERS: Spawners seen in lower sections of creek.

GENERAL INFORMATION

SHELTER: FRI Lake Nerka cabin.

SURVEY ROUTES AND METHODS: Rarely surveyed.

PERSONAL-USE FISHERY: None observed.

FISH SPECIES: None observed.

WILDLIFE SPECIES: Brown bear.

REMARKS: A poor producer.

N 51.7 SAM CREEK (Lake Nerka)

LOCATION: 59°36'17" N. 158°50'54" W.

PREVIOUS NAMES OR NUMBERS:

U.S.G.S. MAP: Dillingham, Alaska, 1:250,000, 1951

PHYSICAL DESCRIPTION

TOTAL LENGTH: 3.1 miles

LENGTH ACCESSIBLE TO SALMON: 3.1 miles

AVERAGE WIDTH: 24'2" RANGE: 20'-30'

AVERAGE DEPTH: 13" RANGE: 3"-19"

TOTAL ACCESSIBLE SPAWNING AREA: 9.1 acres

POTENTIAL SPAWNING AREA: 80%; 7.3 acres

BOTTOM QUALITY: 90% gravel, 10% rubble

WATERSHED: Drains mountain valley.

GRADIENT:

WATER VELOCITY:

FLOW: RANGE:

AIR TEMPERATURE:

WATER TEMPERATURE:

POOLS AND RIFFLES: Many riffles.

N 51.7 SAM CREEK (Lake Nerka)

RED SALMON RUNS

PERCENT OF TOTAL ESCAPEMENT:

ESCAPEMENT RANGE:

TIME OF OCCUPANCY:

PEAK OF SPAWNING:

DISTRIBUTION OF SPAWNERS: Lower section of creek.

GENERAL INFORMATION

SHELTER: FRI Lake Nerka cabin.

SURVEY ROUTES AND METHODS: Rarely surveyed.

PERSONAL-USE FISHERY: None observed.

FISH SPECIES: None observed.

WILDLIFE SPECIES: Brown bear.

REMARKS: Poor producer.

N 81.3 KEMA CREEK (Lake Nerka)

LOCATION: 59°34'00" N. 158°35'24" W.

PREVIOUS NAMES OR NUMBERS:

U.S.G.S. MAP: Dillingham, Alaska, 1:250,000, 1951

PHYSICAL DESCRIPTION

TOTAL LENGTH: 3.2 miles

LENGTH ACCESSIBLE TO SALMON: 3.2 miles (Some years less, depending on beaver dams)

AVERAGE WIDTH: 22' (Lower part) RANGE: 12'-40'

AVERAGE DEPTH: 15" RANGE: 10"-42" (Midstream)

TOTAL ACCESSIBLE SPAWNING AREA: 8.53 acres

POTENTIAL SPAWNING AREA: 82%; 7.0 acres

BOTTOM QUALITY: 90% gravel, 10% mud

WATERSHED: 4 square miles. Drains extensive sloping tundra area with low hills on upper east side. Willows along shore at mouth. Much beaver activity.

GRADIENT:

WATER VELOCITY: Average = 2.0 fps.
Range = 0.5-2.5 fps.

FLOW: 41.3 cfs. (Aug. 18, 1960). Medium water level. Flow station one-half mile upstream from mouth. RANGE:

AIR TEMPERATURE: 13.3° C. (Aug. 18, 1960)

WATER TEMPERATURE: 12.2° C. (Aug. 18, 1960); 10.1° C. (Aug. 19, 1962)

POOLS AND RIFFLES: Several wide pools behind beaver dams.

N 81.3 KEMA CREEK (Lake Nerka)

RED SALMON RUNS

PERCENT OF TOTAL ESCAPEMENT: 1.11%

ESCAPEMENT RANGE: 1,500-20,000

TIME OF OCCUPANCY: Aug. 1-Sept. 1

PEAK OF SPAWNING: Aug. 18

DISTRIBUTION OF SPAWNERS: Spawning scattered throughout creek. Heaviest spawning 1.2 miles up from the mouth.

GENERAL INFORMATION

SHELTER: FRI Lake Nerka cabin.

SURVEY ROUTES AND METHODS: Primarily aerial surveys.

PERSONAL-USE FISHERY: None observed.

FISH SPECIES: None observed.

WILDLIFE SPECIES: Brown bear, bald eagle, beaver.

REMARKS: Good gravel in upper areas between beaver dams. Lower areas with good gravel but subjected to silting and flooding.

KEMA CREEK (Lake Nerka)

SUMMARY OF SURVEYS

Date	Method & distance	Live	Dead	Total	Remarks
1946-54					No surveys
1955	T			15,000	
7/26	A			10,000	
8/17	A			15,000	
1956	T			5,250	
8/2	A			4,000	
8/8	A			4,000-5,000	200 off mouth
8/20	G				About peak of spawning. 100 ♂, 100 ♀ measurements; 60 ♂, 60 ♀ scales
1957	T			1,500	
8/8	A			1,500	None above second dam
8/27	A			500	None above second dam
8/28	G	100	665		To just above second dam. 65 ♂, 100 ♀ measurements; 60 ♂, 80 ♀ scales
1958	T			10,000	
8/17	A			10,000	
8/25	G				130 ♂, 150 ♀ measurements; 120 ♂, 120 ♀ scales. Includes 20 ♂, 20 ♀ .3 scales
1959	T			20,000	
7/14	A				5,000 off mouth
8/16	A			20,000	Estimate 20,000

N 81.3 KEMA CREEK (Lake Nerka)

SUMMARY OF SURVEYS

Date	Method & distance	Live	Dead	Total	Remarks
1959					
8/20	G	5,673	1,561		To 0.25 mile above dam. Many fish above this. 103 ♂, 103 ♀ measurements; 60 ♂, 60 ♀ scales
8/27	A			20,000	Visibility poor
1960	T			15,200	
8/18	A			15,200	
8/19	G				No count. Approximate peak of spawning. 100 ♂, 100 ♀ scales and measurements
1961	T			2,000	
8/16	A			2,000	
8/16, 23	G				27 ♂, 100 ♀ scales and measurements
1962	T			8,350	
8/19	A 3.2			8,350	
8/19	G 2.0	5,500	2,849		Surveyed from mouth to beaver dam 1 mile above 75 ft. cut bank. 100 ♂, 100 ♀ scales and measurements

N 92.2 HIDDEN LAKE CREEK (Lake Nerka)

LOCATION: 59°32'54" N. 158°45'42" W.

PREVIOUS NAMES OR NUMBERS:

U.S.G.S. MAP: Dillingham, Alaska, 1:250,000, 1951

PHYSICAL DESCRIPTION

TOTAL LENGTH: 2 miles to upper lake; 0.6 mile to Hidden Lake.

LENGTH ACCESSIBLE TO SALMON: 2 miles (except some years).

AVERAGE WIDTH: 15' (Below Hidden Lake branch) RANGE: 5'-25'

AVERAGE DEPTH: 10.5" RANGE: 3"-24" (Midstream)

TOTAL ACCESSIBLE SPAWNING AREA: 3.64 acres

POTENTIAL SPAWNING AREA: 87%; 3.16 acres

BOTTOM QUALITY: 70% gravel, 30% rubble

WATERSHED: 6 square miles. Drains sloping tundra valley at base of Frog Mountains. The creek is fed by three spring ponds about one-half mile up from the mouth, Hidden Lake, and two small lakes 2 miles upstream. Some beaver dam obstructions in some years.

GRADIENT:

WATER VELOCITY: Average = 2.0 fps.
Range = 1.5-3.0 fps.

FLOW: 27 cfs. (Aug. 18, 1960). Medium-low water level. Flow station 500 feet up from mouth. RANGE:

AIR TEMPERATURE: 13.3° C. (Aug. 18, 1960)

WATER TEMPERATURE: 11.7° C. (Aug. 18, 1960); 14.3° C. (Aug. 20, 1962)

POOLS AND RIFFLES: No large pools.

N 92.2 HIDDEN LAKE CREEK (Lake Nerka)

RED SALMON RUNS

PERCENT OF TOTAL ESCAPEMENT: 0.31%

ESCAPEMENT RANGE: 500-19,000

TIME OF OCCUPANCY:

PEAK OF SPAWNING: Aug. 6 in creek and ponds, Aug. 25 in lake.

DISTRIBUTION OF SPAWNERS: Main concentrations of spawners in ponds. Fairly uniform distribution throughout creek. Hidden Lake fish spawn at the west end of lake.

GENERAL INFORMATION

SHELTER: FRI Lake Nerka cabin.

SURVEY ROUTES AND METHODS: Mainly ground surveys in earlier years, aerial surveys in later years.

PERSONAL-USE FISHERY: None observed.

FISH SPECIES: Occasional pinks.

WILDLIFE SPECIES: Brown bear, bald eagle, beaver.

REMARKS: Excellent spawning in spring ponds and in SE. branch. Spring pond spawners preyed upon by brown bear extensively. Lake spawning unpredictable.

HIDDEN LAKE CREEK (Lake Nerka)

SUMMARY OF SURVEYS

Date	Method & distance	Live	Dead	Total	Remarks
1946	T			5,650	
8/23	G 2.0	4,800	850		To upper lakes
1947	T			2,135	
8/19	G 2.0	1,019	1,116		To upper lakes
1948	T			1,442	
8/26	G 2.0	500	942		To upper lakes
1949-50					No surveys
1951	T			896	
8/18	G	589	307		20-30 off mouth. Estimated 1,000 to 1,500 in creek. 69 ♂, 54 ♀ measurements; 20 ♂, 20 ♀ scales
1952	T			1,125	
8/8	G	1,086	39		
8/18	G				52 ♂, 68 ♀ measurements; 20 ♂, 20 ♀ scales
8/23	G				16 ♂, 32 ♀ measurements
1953	T			756	
8/22	G	204	552		107 ♂, 104 ♀ measurements; 20 ♂, 20 ♀ scales
1954	T			736	
8/24	G			736	55 ♂, 105 ♀ measurements; 20 ♂, 20 ♀ scales
9/2	G				39 ♂ measurements

HIDDEN LAKE CREEK (Lake Nerka)

SUMMARY OF SURVEYS

Date	Method & distance	Live	Dead	Total	Remarks
1955	T			4,516	
8/21	G	2,665	1,851		100 ♂, 100 ♀ measurements; 20 ♂, 20 ♀ scales
1956	T			3,200	
8/8	A			800-900	Counts in ponds and lake only. Good in creek
8/18	G	1,792	1,093		300 off mouth. 100 ♂, 100 ♀ measurements; 60 ♂, 60 ♀ scales
1957	T			500	
8/8	A			100	75 off mouth
8/20	A			400	None off mouth. In creek below forks
8/28	G			500	None off mouth
1958	T			1,000	
8/17	A			1,000	900 in creek, 100 in lake
8/23	G	200	220		Surveyed to half way to forks. 100 ♂, 107 ♀ measurements; 100 ♂, 100 ♀ scales
1959	T			19,000	
8/16	A			19,000	
8/17	G	11,918	4,114		Many dead floating eggs. 100 ♂, 100 ♀ measurements; 60 ♂, 60 ♀ scales
8/27	A			13,500	Nearly all dead

N 92.2 HIDDEN LAKE CREEK (Lake Nerka)

SUMMARY OF SURVEYS

Date	Method & distance	Live	Dead	Total	Remarks
1960	T			8,000	
8/8	G				Ponds and E. fork heavy. 100 ♂, 100 ♀ scales and measurements; 50 ♂, 50 ♀ otoliths
8/18	A			8,000	
1961	T			600	
8/16	A			600	
8/16	G 0.6			227	120 off mouth. Many uncounted remains in creek. 133 fish counted in Lake. Extremely heavy bear predation
8/29	G				Lake only. Approximate peak here. 2 ♂, 12 ♀ scales and measurements
1962	T			1,746	
8/16	A			1,160	
8/20	G 0.6	1,021	725		Includes creek up to third spring pond. Lake not surveyed. 100 ♂, 100 ♀ scales and measurements

N 110.1 LYNX CREEK (Lake Nerka)

LOCATION: 59°29'42" N. 158°55'12" W.

PREVIOUS NAMES OR NUMBERS:

U.S.G.S. MAP: Dillingham, Alaska, 1:250,000, 1951

PHYSICAL DESCRIPTION

TOTAL LENGTH: 1.4 miles

LENGTH ACCESSIBLE TO SALMON: 1.4 miles

AVERAGE WIDTH: 25' RANGE: 18'-30'

AVERAGE DEPTH: 14" RANGE: 6"-36"

TOTAL ACCESSIBLE SPAWNING AREA: 4.24 acres

POTENTIAL SPAWNING AREA: 60%; 2.55 acres

BOTTOM QUALITY: 50% gravel, 50% rubble

WATERSHED: 10.1 square miles. Flows from Lynx Lake and skirts west end of low mountain ridge. A few passable log jams.

GRADIENT:

WATER VELOCITY: Average = 3.2 fps.
Range = 2.5-4.0 fps.

FLOW: 106.3 cfs (Aug. 7, 1960). High water level. Flow station at mouth. RANGE:

AIR TEMPERATURE: 10.6° C. (Aug. 7, 1960); 14.0° C. (Aug. 25, 1962)

WATER TEMPERATURE: 10.6° C. (Aug. 7, 1960); 11.7° C. (Aug. 25, 1962)

POOLS AND RIFFLES: Many deep areas on left bank.

N 110.1 LYNX CREEK (Lake Nerka)

RED SALMON RUNS

PERCENT OF TOTAL ESCAPEMENT: 0.37%

ESCAPEMENT RANGE: 100-15,000

TIME OF OCCUPANCY: July 15-Aug. 28. Early fish are migrating to Lynx Lake.

PEAK OF SPAWNING: Aug. 13

DISTRIBUTION OF SPAWNERS: Spawning throughout creek but decreases gradually toward the head.

GENERAL INFORMATION

SHELTER: FRI Lake Nerka cabin.

SURVEY ROUTES AND METHODS: Ground surveys in earlier years, aerial surveys in later years.

PERSONAL-USE FISHERY: None observed.

FISH SPECIES: Chums and occasional kings.

WILDLIFE SPECIES: Brown bear, bald eagle.

REMARKS: Good spawning gravel in patches along entire length. Better spawning conditions in lower part.

LYNX CREEK (Lake Nerka)

SUMMARY OF SURVEYS

Date	Method & distance	Live	Dead	Total	Remarks
1946	T			10,248	
8/16	G 1.4	4,969	779		4,000-5,000 off mouth
1947	T			10,377	
8/3	G	2,148	9		Schools off mouth
8/15	G	8,444	1,933		Schools off mouth. 100 ♂, 102 ♀ measurements; 30 ♂, 30 ♀ scales
8/21	G 0.3	2,375	1,576		
9/11	G				Spawning over
1948	T			8,794	
8/24	G			3,095	New run entering. 100 ♂, 100 ♀ measurements; 30 ♂, 30 ♀ scales
8/27	G			8,794	Most fish dead
1949	T			532	
8/15	G	363	14		
9/3	G			25	Spawning over. 3 ♂ scales and measurements
1950	T			544	
8/7	G				Schools off mouth. Fish ascending
8/21	G				Peak of spawning. 8 ♂, 75 ♀ measurements; 8 ♂, 20 ♀ scales
8/28	G			544	11 ♂, 65 ♀ measurements; 11 ♂ scales

LYNX CREEK (Lake Nerka)

SUMMARY OF SURVEYS

Date	Method & distance	Live	Dead	Total	Remarks
1951	T			1,800	
7/18	G				Few in creek
7/20	G			29	Appear migrating to lake
8/1	G			494	Many appear migrating to lake
8/11	G			1,043	About one-third spawned out
8/16	G				100 off mouth. Most spawned out
8/19	G 0.7			1,492	72 ♂, 72 ♀ measurements; 20 ♂, 20 ♀ scales
8/22	G				30 ♂, 32 ♀ scales and measurements
1952	T			1,474	
7/9	G			0	500 off mouth
8/5					Schools off mouth. Fresh fish entering
8/12					Schools off mouth. Spawning in creek
8/17	G			1,455	75 off mouth. Spawning nearly over. 21 ♂, 26 ♀ scales and measurements
8/24	G			1,381	None off mouth. Most fish spawned. 50 ♂, 74 ♀ scales and measurements
1953	T			1,241	
7/10	G				A few fish in mouth of creek

N 110.1 LYNX CREEK (Lake Nerka)

SUMMARY OF SURVEYS

Date	Method & distance	Live	Dead	Total	Remarks
1953					
7/15	G				Fish moving up creek
8/3	G				Fish ascending creek
8/7	G 1.4	650	27		200 off mouth
8/21	G	926	325		80% spawned out. 12 chums and 3 kings. 103 ♂, 103 ♀ measurements; 20 ♂, 20 ♀ scales
1954	T			489	
8/7	G			0	700-800 off mouth
8/24	G			359	25 off mouth. High water
8/28	G			489	None off mouth. Most spent. 27 ♂, 25 ♀ measurements
1955	T			3,015	
7/7	A 1.4			3,015	None off mouth. To lake
7/26	A			50	100-200 off mouth
8/7	A 0.5			400-500	500 off mouth
8/24	G				400 off mouth. 100 ♂, 100 ♀ measurements; 20 ♂, 20 ♀ scales
1956	T			2,100	
8/7				Few	500 off mouth
8/25				1,706	Estimated 2,000-2,100 in creek. 100 ♂, 100 ♀ scales and measurements

LYNX CREEK (Lake Nerka)

SUMMARY OF SURVEYS

Date	Method & distance		Live	Dead	Total	Remarks
1957	T				400	
8/4	A				300-400	300 off mouth. Creek water level low
8/27	A				Few	
8/30	A				Few	
8/31	G	0.8	45	220		Estimated 400 fish. 25 ♂, 95 ♀ measurements; 25 ♂, 93 ♀ scales
1958	T				1,026	
8/7	A				Few	300 off mouth
8/21	A	0.7	993	33		Half of fish spent. 24 ♂, 9 ♀ scales and measurements
8/26	G					Many jacks and most of rest .3 fish. 64 ♂, 56 ♀ measurements
8/27						300-400 off mouth
9/7	G					8 ♂, 56 ♀ measurements
1959	T				15,000	
7/6	A				0	Schools off mouth
7/14	A				0	1,000 fish along beach
8/10	A				4,000	4,500 off mouth
8/21	G		7,414	6,073		Schools off mouth. Estimated 15,000 total run. 105 ♂, 105 ♀ measurements; 60 ♂, 60 ♀ scales
8/27	A				15,000	2,000 off mouth

N 110.1 LYNX CREEK (Lake Nerka)

SUMMARY OF SURVEYS

Date	Method & distance	Live	Dead	Total	Remarks
1960	T			3,000	
8/18	A			3,000	
8/23					No count. Past peak of spawning. 100 ♂, 108 ♀ measurements; 100 ♂, 100 ♀ scales
1961	T			100	
8/16	A			100	
8/18					Very poor run. 4 ♂, 7 ♀ scales and measurements
1962	T			855	
8/19	A 1.4			600	
8/25	G 1.4	330	525		Surveyed to Lynx Lake. 34 ♂, 100 ♀ scales and measurements

N 118.6 TEAL CREEK (Lake Nerka)

LOCATION: 59°29'30" N. 158°43'42" W.

PREVIOUS NAMES OR NUMBERS:

U.S.G.S. MAP: Dillingham, Alaska, 1:250,000, 1951

PHYSICAL DESCRIPTION

TOTAL LENGTH: 1.7 miles

LENGTH ACCESSIBLE TO SALMON: 1.7 miles

AVERAGE WIDTH: 14'3" RANGE: 10'7"-21'10"

AVERAGE DEPTH: 14" RANGE: 4"-24"

TOTAL ACCESSIBLE SPAWNING AREA: 2.93 acres

POTENTIAL SPAWNING AREA: 70%; 2.05 acres

BOTTOM QUALITY: 80% gravel, 20% sand, and mud

WATERSHED: Drains lowland area. Beaver dams occur near mouth.

GRADIENT:

WATER VELOCITY:

FLOW: 5.9 cfs. (Aug. 18, 1962). Flow station near mouth. RANGE:

AIR TEMPERATURE:

WATER TEMPERATURE: 8.4° C. (Aug. 18, 1962)

POOLS AND RIFFLES:

N 118.6 TEAL CREEK (Lake Nerka)

RED SALMON RUNS

PERCENT OF TOTAL ESCAPEMENT:

ESCAPEMENT RANGE: 50-30,000

TIME OF OCCUPANCY: Aug. 10-Aug. 31

PEAK OF SPAWNING:

DISTRIBUTION OF SPAWNERS:

GENERAL INFORMATION

SHELTER: John Pearson's cabin.

SURVEY ROUTES AND METHODS: Usually aerial surveys.

PERSONAL-USE FISHERY: None observed.

FISH SPECIES: None observed.

WILDLIFE SPECIES: None observed.

REMARKS: Fairly good gravel in upper part, although rocky in central part. Possesses high potential as indicated by large run of 1959.

N 118.6 TEAL CREEK (Lake Nerka)

SUMMARY OF SURVEYS

Date	Method & distance	Live	Dead	Total	Remarks
1946-55					No surveys
1956	T			2,000	
8/7	A				2,000 off mouth. Visibility poor
8/27	G			600-800	Few live. Many fish decayed. 90 ♂, 100 ♀ measurements; 40 ♂, 40 ♀ scales
8/31	A 1.7			1,000-1,500	Dead observed near mouth
1957	T			50	
8/8	A			0	None off mouth
8/27	A		50		Poor visibility
8/30	A		50		
8/31	G				Fish past lower two dams. Run small. 7 ♂, 11 ♀ measurements and scales
1958	T			Few	
8/7	G			Few	No aerial survey
1959	T			30,000	
8/10	A 1.7			29,400	600 off mouth. Most fish in upper parts of both branches
1960	T			7,000	
8/9	A			7,000	

N 118.6

TEAL CREEK (Lake Nerka)

SUMMARY OF SURVEYS

Date		Method & distance	Live	Dead	Total	Remarks
1961		T			100	
	8/6	A			100	
1962		T			1,700	
	8/9	A			1,700	

N 120.8 BEAR CREEK (Lake Nerka)

LOCATION: 59°24'48" N. 158°40'30" W.

PREVIOUS NAMES OR NUMBERS:

U.S.G.S. MAP: Dillingham, Alaska, 1:250,000, 1951

PHYSICAL DESCRIPTION

TOTAL LENGTH: 3 miles

LENGTH ACCESSIBLE TO SALMON: 3 miles

AVERAGE WIDTH: 15'5" RANGE: 13'-22'

AVERAGE DEPTH: 12" RANGE: 8"-14"

TOTAL ACCESSIBLE SPAWNING AREA: 5.60 acres

POTENTIAL SPAWNING AREA: 50%; 2.8 acres

BOTTOM QUALITY: 10% gravel, 80% rubble, 10% boulders

WATERSHED: Flows through forested area into south arm of Lake Nerka.

GRADIENT:

WATER VELOCITY:

FLOW: RANGE:

AIR TEMPERATURE:

WATER TEMPERATURE:

POOLS AND RIFFLES:

N 120.8 BEAR CREEK (Lake Nerka)

RED SALMON RUNS

PERCENT OF TOTAL ESCAPEMENT:

ESCAPEMENT RANGE:

TIME OF OCCUPANCY:

PEAK OF SPAWNING:

DISTRIBUTION OF SPAWNERS:

GENERAL INFORMATION

SHELTER: John Pearson's cabin.

SURVEY ROUTES AND METHODS: Rarely surveyed.

PERSONAL-USE FISHERY: None observed.

FISH SPECIES: None observed.

WILDLIFE SPECIES: None observed.

REMARKS: Poor producer.

N 122.9 STOVALL CREEK (Lake Nerka)

LOCATION: 59°28'00" N. 158°38'00" W.

PREVIOUS NAMES OR NUMBERS:

U.S.G.S. MAP: Dillingham, Alaska, 1:250,000, 1951

PHYSICAL DESCRIPTION

TOTAL LENGTH: 4.3 miles to first pond

LENGTH ACCESSIBLE TO SALMON: 4.3 miles

AVERAGE WIDTH: 35' in lower part RANGE: 25'-45'

AVERAGE DEPTH: 18" RANGE: 6"-42"

TOTAL ACCESSIBLE SPAWNING AREA: 18.24 acres

POTENTIAL SPAWNING AREA: 75%; 13.68 acres

BOTTOM QUALITY: 70% gravel, 10% rubble, 10% mud, 10% boulder

WATERSHED: 8.0 square miles. Drains from a series of muddy spring potholes through flat tundra valley. Many washed out beaver dams, but they do not constitute an obstruction.

GRADIENT:

WATER VELOCITY: Average = 2.0 fps
Range = 1.5-2.8 fps

FLOW: 57.3 cfs (Aug. 7, 1960). Water level high. Flow station 100 yards upstream from mouth. RANGE:

AIR TEMPERATURE: ' 11.9° C. (Aug. 7, 1960); 20.5° C. (Aug. 23, 1960)

WATER TEMPERATURE: 11.9° C (Aug. 7, 1960); 16.4° C. at mouth (Aug. 23, 1962)

POOLS AND RIFFLES: Deep areas against bank approximately every 200 feet.

N 122.9 STOVALL CREEK (Lake Nerka)

RED SALMON RUNS

PERCENT OF TOTAL ESCAPEMENT: 1.86%

ESCAPEMENT RANGE: 854-75,000

TIME OF OCCUPANCY: Aug. 4-Sept. 26

PEAK OF SPAWNING: Aug. 20 in creek, later in lake.

DISTRIBUTION OF SPAWNERS: Scattered spawning to ponds. Pond spawning in some years, none in others.

GENERAL INFORMATION

SHELTER: John Pearson's camp.

SURVEY ROUTES AND METHODS: Aerial surveys in most years.

PERSONAL-USE FISHERY: None observed.

FISH SPECIES: None observed.

WILDLIFE SPECIES: Brown bear, bald eagle.

REMARKS: Ponds occasionally very productive.

STOVALL CREEK (Lake Nerka)

SUMMARY OF SURVEYS

Date	Method & distance	Live	Dead	Total	Remarks
1946-53					No surveys
1954	T				Good run
8/21	G				Sample from creek only. 90 ♂, 107 ♀ measurements; 20 ♂, 20 ♀ scales
1955	T				
8/17					Slightly better than previous year
8/20	G				73 ♂, 96 ♀ measurements; 20 ♂, 20 ♀ scales
1956	T			21,000	
8/2	A			0	Visibility poor
8/7					Visibility poor. Fair numbers for 3-4 miles
8/27	G				Very good run. Sample from creek only. 86 ♂, 100♀ measurements; 80 ♂, 80 ♀ scales
8/31	A			1,000	Count from creek only. Probably low estimate
9/24	A			20,000	Sample from lake only. Spawning in north bay of Stovall Lake. Lake muddy and full of dead. Approximately 95% .2 fish of unusually small size. 28 ♂, 51 ♀ measurements; 27 ♂, 40 ♀ scales
9/27	G				68 ♂, 86 ♀ measurements

N 122.9 STOVALL CREEK (Lake Nerka)

SUMMARY OF SURVEYS

Date	Method & distance	Live	Dead	Total	Remarks
1957	T			1,500	
8/8	A			500	Creek count only
8/27	A				Visibility too poor
8/31	G				Very poor run. 7 ♂, 40 ♀ scales and measurements from creek
9/9	A	1,000	500		Bears less than 1956. Both .2 and .3 fish present. 74 ♂, 100 ♀ measurements; 74 ♂, 80 ♀ scales
1958	T			854	
8/7	G			704	150 off mouth
8/26	G 0.5	400			102 ♂, 110 ♀ measurements; 100 ♂, 100 ♀ scales
1959	T			75,000	
8/10	A			75,000	200 off mouth. 5,000 of these in creek. Lake solid with fish
8/22	G	1,763	1,256		Surveyed creek only. To island above steep bank. 106 ♂, 106 ♀ measurements; 60 ♂, 60 ♀ scales
8/27					Little sign of fish
1960	T			5,000	
8/9	A			5,000	Includes Stovall Lake peak estimate
8/20	G				Surveyed creek only. Approximate peak of spawning. 100 ♂, 100 ♀ scales and measurements

STOVALL CREEK (Lake Nerka)

SUMMARY OF SURVEYS

Date	Method & distance	Live	Dead	Total	Remarks
1961	T			2,000	
8/6	A			2,000	Includes Stovall Lake peak estimate
8/15, 21	G				Surveyed creek only. Approximate peak of spawning Aug. 21. 42 ♂, 100 ♀ scales and measurements
1962	T			2,888	
8/9	A			2,000	
8/23	G 2.5	1,629	1,259		

N 127.3 PIKE CREEK (Lake Nerka)

LOCATION: 59°25'18" N. 158°05'06" W.

PREVIOUS NAMES OR NUMBERS:

U.S.G.S. MAP: Dillingham, Alaska, 1:250,000, 1951

PHYSICAL DESCRIPTION

TOTAL LENGTH: 2.8 miles

LENGTH ACCESSIBLE TO SALMON: 2.8 miles

AVERAGE WIDTH: 25.5' (Above slough) RANGE: 18'-32' (Above slough)

AVERAGE DEPTH: 10" RANGE: 2"-24"

TOTAL ACCESSIBLE SPAWNING AREA: 8.65 acres

POTENTIAL SPAWNING AREA: 83%; 7.18 acres

BOTTOM QUALITY: 80% gravel, 20% sand, and mud

WATERSHED: Drains mixed forested and tundra area. No obstructions observed.

GRADIENT:

WATER VELOCITY:

FLOW: 22.3 cfs (Aug. 16, 1962). Medium water level. RANGE:

AIR TEMPERATURE:

WATER TEMPERATURE: 9.3° C. (Aug. 16, 1962)

POOLS AND RIFFLES:

N 127.3 PIKE CREEK (Lake Nerka)

RED SALMON RUNS

PERCENT OF TOTAL ESCAPEMENT:

ESCAPEMENT RANGE: 1,500-12,000

TIME OF OCCUPANCY: Aug. 6-Aug. 31

PEAK OF SPAWNING: Approximately Aug. 10

DISTRIBUTION OF SPAWNERS: Spawners spread out along entire length of creek, but heaviest concentration in upper sections.

GENERAL INFORMATION

SHELTER: FRI Lake Nerka cabin.

SURVEY ROUTES AND METHODS: Usually aerial surveys.

PERSONAL-USE FISHERY: None observed.

FISH SPECIES: None observed.

WILDLIFE SPECIES: Brown bear.

REMARKS: Lower part of creek (1-2 miles) composed of large slough. Upper sections of creek have good gravel and excellent riffles.

N 127.3 PIKE CREEK (Lake Nerka)

SUMMARY OF SURVEYS

Date	Method & distance		Live	Dead	Total	Remarks
1946-50						No surveys
1951	T				Few	
1952-54						No surveys
1955	T				6,000	
8/12	A				6,000-7,000	Dead plentiful
1956	T				0	No sign of fish. May have washed out
1957	T				1,800	
8/8	A	2.6			1,800	None in lower creek; 300 in main east fork; 1,500 in smaller west fork
1958	T				4,100	
8/7	A	2.6			4,100	All in west fork with small lake at head
1959	T				5,000	
8/10	A				5,000	
1960	T				10,000	
8/9	A				10,000	
1961	T				1,500	
8/6	A				1,500	
1962	T				12,000	
8/9	A				12,000	
8/16	G		2,476	752		100 ♂, 100 ♀ scales and measurements

N 132.0 ROSS CREEK (Lake Nerka)

LOCATION: 59°24'36" N. 158°33'54" W.

PREVIOUS NAMES OR NUMBERS:

U.S.G.S. MAP: Dillingham, Alaska, 1:250,000, 1951

PHYSICAL DESCRIPTION

TOTAL LENGTH: 0.6 mile

LENGTH ACCESSIBLE TO SALMON: 0.6 mile

AVERAGE WIDTH: 7'1" RANGE: 5'10"-8'7"

AVERAGE DEPTH: 7" RANGE: 3"-12"

TOTAL ACCESSIBLE SPAWNING AREA: 0.52 acre

POTENTIAL SPAWNING AREA: 95%; 0.49 acre

BOTTOM QUALITY: 100% gravel

WATERSHED:

GRADIENT:

WATER VELOCITY:

FLOW: RANGE:

AIR TEMPERATURE:

WATER TEMPERATURE:

POOLS AND RIFFLES:

N 132.0 ROSS CREEK (Lake Nerka)

RED SALMON RUNS

PERCENT OF TOTAL ESCAPEMENT:

ESCAPEMENT RANGE: ? -327

TIME OF OCCUPANCY:

PEAK OF SPAWNING:

DISTRIBUTION OF SPAWNERS: Spawners throughout entire creek.

GENERAL INFORMATION

SHELTER: John Pearson's cabin.

SURVEY ROUTES AND METHODS: Rarely surveyed.

PERSONAL-USE FISHERY: None observed.

FISH SPECIES: None observed.

WILDLIFE SPECIES: Brown bear.

REMARKS: Bear predation is extremely heavy.

N 132.0 ROSS CREEK (Lake Nerka)

SUMMARY OF SURVEYS

Date	Method & distance	Live	Dead	Total	Remarks
1946-61					No surveys
1962	T			327	
8/18	G 0.4	104	223		Heavy bear predation

N 133.0 MOSS CREEK (Lake Nerka)

LOCATION: 59°24'48" N. 158°35'42" W.

PREVIOUS NAMES OR NUMBERS:

U.S.G.S. MAP: Dillingham, Alaska, 1:250,000, 1951

PHYSICAL DESCRIPTION

TOTAL LENGTH: >0.5 mile

LENGTH ACCESSIBLE TO SALMON: >0.5 mile

AVERAGE WIDTH: 6.5' RANGE: 4'-7'

AVERAGE DEPTH: 2" RANGE: 1"-3"

TOTAL ACCESSIBLE SPAWNING AREA: 0.39 acre

POTENTIAL SPAWNING AREA: 90%; 0.35 acre

BOTTOM QUALITY: 100% gravel

WATERSHED: Flows from gentle sloping tundra area. Appears to be spring fed. No obstructions.

GRADIENT:

WATER VELOCITY: Average = 2.5 fps.

FLOW: 4.58 cfs. (Aug. 7, 1960). Medium water level. Flow station 50 yards up from mouth. RANGE:

AIR TEMPERATURE: 11.7° C. (Aug. 7, 1960); 18.3° C. (Aug. 17, 1962)

WATER TEMPERATURE: 7.8° C. (Aug. 7, 1960); 7.8° C. (Aug. 17, 1962)

POOLS AND RIFFLES: No pools.

N 133.0 MOSS CREEK (Lake Nerka)

RED SALMON RUNS

PERCENT OF TOTAL ESCAPEMENT: < 0.01%

ESCAPEMENT RANGE: Not well known, but considered small.

TIME OF OCCUPANCY: Approximately same time as Aleknagik creeks.

PEAK OF SPAWNING: Approximately same time as Aleknagik creeks.

DISTRIBUTION OF SPAWNERS: Fish observed as far as survey (0.5 mile).

GENERAL INFORMATION

SHELTER: John Pearson's camp.

SURVEY ROUTES AND METHODS: Not usually surveyed.

PERSONAL-USE FISHERY: None observed.

FISH SPECIES: None observed.

WILDLIFE SPECIES: Brown bear, bald eagle.

REMARKS: Excellent spawning facilities for a small stream.

N 133.0 MOSS CREEK (Lake Nerka)

SUMMARY OF SURVEYS

Date	Method & distance	Live	Dead	Total	Remarks
1946-61					No surveys
1962	T			17	
8/17	G	9	8		25 off mouth. Peak of spawning

N 136.7 ALLAH CREEK (Lake Nerka)

LOCATION: 59°26'30" N. 158°40'30" W.

PREVIOUS NAMES OR NUMBERS:

U.S.G.S. MAP: Dillingham, Alaska, 1:250,000, 1951

PHYSICAL DESCRIPTION

TOTAL LENGTH: 1.2 miles

LENGTH ACCESSIBLE TO SALMON: 0.3 mile

AVERAGE WIDTH: 7' RANGE: 6'-18'

AVERAGE DEPTH: 12" RANGE: 6"-24"

TOTAL ACCESSIBLE SPAWNING AREA: 0.28 acre

POTENTIAL SPAWNING AREA: 67%; 0.19 acre

BOTTOM QUALITY: 90% gravel, 10% rubble

WATERSHED: 0.8 square mile. Drains side of mountain through steep gorged riverbed. Heavy willows follow creek. No obstructions in lower part of creek.

GRADIENT:

WATER VELOCITY: Average = 3.2 fps.
Range = 3.0-4.0 fps.

FLOW: 57.2 cfs. (Aug. 7, 1960). High water level. Flow station at mouth of creek. RANGE:

AIR TEMPERATURE: 11.1° C. (Aug. 7, 1960)

WATER TEMPERATURE: 6.7° C. (Aug. 7, 1960)

POOLS AND RIFFLES: None in lower part.

N 136.7 ALLAH CREEK (Lake Nerka)

RED SALMON RUNS

PERCENT OF TOTAL ESCAPEMENT: < 0.01%

ESCAPEMENT RANGE: Included with Allah Creek beach area.

TIME OF OCCUPANCY: Not observed.

PEAK OF SPAWNING: Approximately same time as Lake Aleknagik creeks.

DISTRIBUTION OF SPAWNERS: Most spawning near mouth.

GENERAL INFORMATION

SHELTER: John Pearson's cabin.

SURVEY ROUTES AND METHODS: Rarely surveyed.

PERSONAL-USE FISHERY: None observed.

FISH SPECIES: None observed.

WILDLIFE SPECIES: None observed.

REMARKS: A creek of minor importance due to high water velocity and compactness of gravel. Also subjected to flash floods and winter dryness.

N 136.7 ALLAH CREEK (Lake Nerka)

SUMMARY OF SURVEYS

Date	Method & distance	Live	Dead	Total	Remarks
1946-61					No surveys
1962	T			162	
8/17	G 0.5	54	108		Past peak of spawning

N 141.4 FENNO CREEK (Lake Nerka)

LOCATION: 59° 26' 30" N. 158° 47' 06" W.

PREVIOUS NAMES OR NUMBERS:

U.S.G.S. MAP: Dillingham, Alaska, 1:250,000, 1951

PHYSICAL DESCRIPTION

TOTAL LENGTH: 3.2 miles

LENGTH ACCESSIBLE TO SALMON: 3.2 miles

AVERAGE WIDTH: 25' RANGE: 10'-65'

AVERAGE DEPTH: 14" RANGE: 8"-36"

TOTAL ACCESSIBLE SPAWNING AREA: 9.7 acres

POTENTIAL SPAWNING AREA: 64%; 6.21 acres

BOTTOM QUALITY: 90% gravel, 5% sand, 5% rubble

WATERSHED: 15.8 square miles. Drains valley behind Jackknife Mountain. No obstructions except for high beaver dam on left fork.

GRADIENT:

WATER VELOCITY: Average = 2.8 fps.
Range = 2.3-3.3 fps.

FLOW: 104 cfs. (Aug. 13, 1960). High water level. Flow station is 100 feet up from mouth. RANGE:

AIR TEMPERATURE: 12.2° C. (Aug. 13, 1960)

WATER TEMPERATURE: 8.9° C. (Aug. 13, 1960); 12.8° C. (Aug. 12, 1962)

POOLS AND RIFFLES: Many narrow deep pools about 200 feet apart.

N 141.4 FENNO CREEK (Lake Nerka)

RED SALMON RUNS

PERCENT OF TOTAL ESCAPEMENT: 0.33%

ESCAPEMENT RANGE: 1,000-15,000

TIME OF OCCUPANCY: July 28-Aug. 20

PEAK OF SPAWNING: Aug. 8

DISTRIBUTION OF SPAWNERS: Main spawning concentrated in lower 0.75 mile.

GENERAL INFORMATION

SHELTER: John Pearson's camp.

SURVEY ROUTES AND METHODS: Ground surveys in earlier years, aerial surveys in later years.

PERSONAL-USE FISHERY: None observed.

FISH SPECIES: Chums.

WILDLIFE SPECIES: Brown bear, bald eagle, beaver.

REMARKS: Excellent spawning gravel in lower sections of stream.

N 141.4 FENNO CREEK (Lake Nerka)

SUMMARY OF SURVEYS

Date	Method & distance	Live	Dead	Total	Remarks
1946	T			6,100	
8/14	G	4,950	1,150		To head of spawning
1947	T			3,135	
8/1	G	2,131	26		Few off mouth
8/13	G	229	2,527		Dead approximately 85% of total. 32 ♂, 92 ♀ measurements; 30 ♂, 30 ♀ scales
1948-50					No surveys
1951	T			1,477	
8/9	G	1,192	255		Estimated total population 1,500-2,000. 100 ♂, 66 ♀ measurements; 20 ♂, 20 ♀ scales
1952	T			1,091	
8/10	G	706	58		Estimated 70% of total. 27♂, 6 ♀ measurements; 20 ♂, 5 ♀ scales
8/14	G				73 ♂, 101 ♀ measurements; 15 ♀ scales
1953	T			1,193	
8/3	G	1,015	157		Surveyed to upper area. 34 ♂, 17 ♀ measurements; 20 ♂, 17 ♀ scales
8/8	G	904	289		66 ♂, 83 ♀ measurements; 3 ♀ scales
1954	T			1,604	

FENNO CREEK (Lake Nerka)

SUMMARY OF SURVEYS

Date	Method & distance	Live	Dead	Total	Remarks
1954					
8/6	G			1,419	30-50 off mouth. Surveyed to upper area. 121 measurements
8/9	G			1,604	Surveyed to upper area. Many jacks. 146 measurements; 60 scales
1955	T			3,670	
8/20	G	130	3,540		3 weeks past peak. 100 ♂, 100 ♀ measurements, 20 ♂, 20 ♀ scales
1956	T			5,000	
8/2	A			4,000-5,000	
8/9	A			4,200-6,200	
8/11	G				100 ♂, 100 ♀ measurements; 80 ♂, 80 ♀ scales
1957	T			1,000	
8/4	G			1,000	
8/9	G				Run smaller than 1956. 83 ♂, 101 ♀ measurements; 80 ♂, 80 ♀ scales
1958	T			1,921	
8/10	G	1,549	372		Just past peak. Surveyed to rapids. Many jacks. 49 ♂, 19 ♀ scales and measurements

FENNO CREEK (Lake Nerka)

SUMMARY OF SURVEYS

Date	Method & distance	Live	Dead	Total	Remarks
1959	T			15,000	
8/7	G			15,000	To head of spawning in meadow. 103 ♂, 103 ♀ measurements; 100 ♂, 100 ♀ scales
1960	T			5,000	
8/9	A			5,000	
8/13	G				Few live fish left. Many dead. No count. 100 ♂, 105 ♀ measurements; 100 ♂, 100 ♀ scales
1961	T			1,200	
8/6	A			1,200	
8/10, 15	G				100 ♂, 100 ♀ scales and measurements
1962	T			1,000	
8/9	A			1,000	
8/12	G 2.0	475	427		4-5 days past peak of spawning

T 0.0 LITTLE TOGIAK RIVER (Connecting Stream)

LOCATION: 59° 33'48" N. 159° 05'06" W.

PREVIOUS NAMES OR NUMBERS:

U.S.G.S. MAP: Goodnews, Alaska, 1:250,000, 1951

PHYSICAL DESCRIPTION

TOTAL LENGTH: 0.25 mile

LENGTH ACCESSIBLE TO SALMON: 0.25 mile

AVERAGE WIDTH: 175' RANGE: 50'-200'

AVERAGE DEPTH: 16" RANGE: 6"-30"

TOTAL ACCESSIBLE SPAWNING AREA: 5.3 acres

POTENTIAL SPAWNING AREA: 90%; 6.44 acres

BOTTOM QUALITY: 50% gravel, 40% rubble, 10 % boulder

WATERSHED: 33.3 square miles. Flows from Little Togiak Lake through steep rock outcrops to Lake Nerka. No obstructions.

GRADIENT:

WATER VELOCITY: Average = 2.4 fps.
Range = 1.8-3.2 fps.

FLOW: 261 cfs. (Aug. 6, 1960). Medium-high water level. RANGE: 261-272 cfs.
272 cfs. (July 30, 1960). Medium-high water level. Flow station 80 yards up from mouth.

AIR TEMPERATURE: 13.9° C. (Aug. 8, 1960)

WATER TEMPERATURE: 12.2° C. (Aug. 8, 1960); 13.1° C. (July 30, 1960)

POOLS AND RIFFLES: None except deep water at head of river.

T 0.0 LITTLE TOGIAK RIVER (Connecting Stream)

RED SALMON RUNS

PERCENT OF TOTAL ESCAPEMENT: 0.42%

ESCAPEMENT RANGE: 200-20,000

TIME OF OCCUPANCY: July 22-Sept. 7

PEAK OF SPAWNING: Sept. 1

DISTRIBUTION OF SPAWNERS: Some enter lake and drop back to spawn in river. Some spawning above rapids at head. Main spawning lower third of river where good gravel prevails. May be several waves of fish

GENERAL INFORMATION

SHELTER: FRI Lake Nerka cabin.

SURVEY ROUTES AND METHODS: Ground surveys in earlier years, aerial surveys in later years.

PERSONAL-USE FISHERY: None observed.

FISH SPECIES: Chums, silvers, rainbow trout, Arctic char, and pond smelt.

WILDLIFE SPECIES: Brown bear, bald eagle.

REMARKS: Excellent gravel area in lower river.

T 0.0 LITTLE TOGIAK RIVER (Connecting Stream)

SUMMARY OF SURVEYS

Date	Method & distance	Live	Dead	Total	Remarks
1946					No information
1947	T			3,000	
9/12	G 0.25		552		Most fish dead
1948	T			3,000	
8/16	G 0.25			3,000	Probably many migrating through
9/1	G 0.25		257		Right bank only. 100 ♂, 100 ♀ measurements; 30 ♂, 30 ♀ scales
1949	T			200	
8/16	G 0.25			200	Spawning in lower part
9/12	G 0.25				8 ♂, 30 ♀ measurements; 8 ♂, 20 ♀ scales. Spawning over
1950	T				No counts
9/2	G 0.25				No counts. 81 ♂, 37 ♀ measurements; 20 ♂, 20 ♀ scales
9/5	G 0.25				No counts. 30 ♂, 66 ♀ measurements; 20 ♂, 20 ♀ scales
1951	T				No counts
9/8	G 0.25				No counts. 33 ♂, 23 ♀ measurements; 20 ♂, 20 ♀ scales

T 0.0 LITTLE TOGIAK RIVER (Connecting Stream)

SUMMARY OF SURVEYS

Date	Method & distance	Live	Dead	Total	Remarks
1952	T			450	
8/30	G 0.25			350-450	26 ♂, 37 ♀ measurements; 20 ♂, 20 ♀ scales
9/4	G 0.25				42 ♂, 20 ♀ measurements
9/5	G 0.25				8 ♂, 29 ♀ measurements
9/6	G 0.25				29 ♂ measurements
1953	T			800	
9/2	G 0.25			500-800	96 ♂, 61 ♀ measurements; 20 ♂, 20 ♀ scales
9/12	G 0.25				8 ♂, 44 ♀ measurements
1954	T			1,000	
8/8	G 0.25				1,000 off mouth
8/20	G 0.25				No counts
9/3	G 0.25				No counts. 53 ♂, 20 ♀ scales and measurements
9/6	G 0.25				No ccunts. 102 measurements
9/17	G 0.25				No counts. 11 ♂, 45 ♀ measurements
1955	T			2,002	
8/22	G 0.25	2,000	2		
9/10	G 0.25	881	624		100 ♂, 100 ♀ measurements; 40 ♂, 40 ♀ scales

T 0.0 LITTLE TOGIAK RIVER (Connecting Stream)

SUMMARY OF SURVEYS

Date	Method & distance	Live	Dead	Total	Remarks
1956	T			3,000	
7/28	G 0.25			1,000	Schooled in river
8/2	A 0.25			2,000	Appear to be spawning
8/7	A 0.25			1,000-2,000	
8/8	A 0.25			2,500	
8/31	A 0.25			3,000-4,000	Spread out and spawning
9/3,4	G 0.25			2,500	
9/11	G 0.25				33 ♂, 106 ♀ measurements; 33 ♂, 70 ♀ scales
1957	T			1,000	
8/8	A 0.25				500 off mouth
8/27	A 0.25			500-1,000	Spawning
9/9	G 0.25				14 ♂, 36 ♀ measurements; 13 ♂, 29 ♀ scales
1958	T			2,000	
9/2	G 0.25				40 ♂, 21 ♀ scales and measurements
9/7	G 0.25				Many died. 68 ♂, 83 ♀ measurements; 60 ♂, 79 ♀ scales

T 0.0 LITTLE TOGIAK RIVER (Connecting Stream)

SUMMARY OF SURVEYS

Date	Method & distance	Live	Dead	Total	Remarks
1959	T			20,000	
8/7	A 0.25			20,000	
8/23	G 0.25				Large schools off mouth. Eggs drifting. 109 ♂, 104 ♀ measurements; 60 ♂ 60 ♀ scales
1960	T			10,000	
8/9	A 0.25			10,000	
9/1,2	G 0.25				Approximate peak. Abundant dead. 100 ♂, 100 ♀ scales and measurements
1961	T			3,300	
8/16	A 0.25			3,300	
9/4	G 0.25				200 ♂, 200 ♀ measurements; 100 ♂, 100 ♀ scales
1962	T			3,000	
8/16	A 0.25			3,000	
9/4	G 0.25				100 ♂, 100 ♀ scales, measurements, and otoliths

T 7.5 LITTLE TOGIAK CREEK (Little Togiak Lake)

LOCATION: 59° 33'48" N. 159° 05'06" W.

PREVIOUS NAMES OR NUMBERS:

U.S.G.S. MAP: Goodnews, Alaska, 1:250,000, 1951

PHYSICAL DESCRIPTION

TOTAL LENGTH: 6 miles

LENGTH ACCESSIBLE TO SALMON: 6 miles

AVERAGE WIDTH: 40' below forks RANGE: 35'-65'

AVERAGE DEPTH: 24" RANGE: 18"-36" in midstream

TOTAL ACCESSIBLE SPAWNING AREA: 29.10 acres

POTENTIAL SPAWNING AREA: 85%; 24.74 acres

BOTTOM QUALITY: 100% gravel

WATERSHED: 14.4 square miles. Drains snowfields. Flows in wide valley to Little Togiak Lake.

GRADIENT:

WATER VELOCITY: Average = 3.0 fps.
Range = 2.5-3.5 fps.

FLOW: 185 cfs.(Aug. 5, 1960). High RANGE:
fall level. Flow station 40 feet
up from mouth.

AIR TEMPERATURE: 11.7° C. (Aug. 5, 1960)

WATER TEMPERATURE: 5.6° C. (Aug. 5, 1960)

POOLS AND RIFFLES: A few deep narrow places near banks.

T 7.5 LITTLE TOGIAK CREEK (Little Togiak Lake)

RED SALMON RUNS

PERCENT OF TOTAL ESCAPEMENT: 0.11%

ESCAPEMENT RANGE: 75-3,000

TIME OF OCCUPANCY: Aug. 10-Oct. 1

PEAK OF SPAWNING: Sept. 13

DISTRIBUTION OF SPAWNERS: Fish observed 0.25 mile above forks. Most spawning in lower area and in right side slough near mouth. Late schools of fish off mouth, probably beach spawners.

GENERAL INFORMATION

SHELTER: FRI Lake Nerka cabin.

SURVEY ROUTES AND METHODS: Both aerial and ground surveys.

PERSONAL-USE FISHERY: None observed.

FISH SPECIES: Arctic char.

WILDLIFE SPECIES: Brown bear, bald eagle.

REMARKS: Good spawning gravel but production limited by extreme low water in winter.

T 7.5 LITTLE TOGIAK CREEK (Little Togiak Lake)

SUMMARY OF SURVEYS

Date	Method & distance	Live	Dead	Total	Remarks
1946	T			60	
8/18	G 0.5		50-60		200-300 off mouth
9/11	G				Visited but no data
1947	T			2,476	
8/18	G		764		Several thousand off mouth. Both forks
9/14	G 6.0		1,816		38 ♂, 100 ♀ measurements; 30 ♂, 30 ♀ scales
9/26	G	660			226 measurements. Dead exceeding live
1948	T			923	
8/16	G				1,000 off mouth
9/2	G			912	Surveyed to forks
9/18	G				800 off mouth. 30 ♂, 100 ♀ measurements; 15 ♂, 15 ♀ scales
9/26	G			923	50 ♂ measurements. Surveyed to forks
1949	T			75	
8/16	G			18	100 off mouth. Surveyed to forks
9/4	G			0	Water very high and muddy
1950	T			243	
8/10	A			18	10,000 off mouth. Surveyed to forks

T 7.5 LITTLE TOGIAK CREEK (Little Togiak Lake)

SUMMARY OF SURVEYS

Date	Method & distance	Live	Dead	Total	Remarks
1950					
9/13	A			243	40-50 off mouth
1951	T			557	
8/3	A			0	500 off mouth
8/15	G			Some	2,500-3,000 off mouth
9/20	A			335	Surveyed to above forks and beaver ponds
9/30	A			228	135 measurements; 80 scales. 25-30% total population
10/14	A			12	
1952	T			517	
8/6	G			0	300-400 off mouth
8/14	G			188	Many off mouth. No dead fish
8/23	G			427	400-500 off mouth
8/30	G			517	400-500 off mouth. 1 ♂, 3 ♀ measurements; 1 ♂, 3 ♀ scales
9/5	G			259	300-400 off mouth
9/24	G	324			50 off mouth. 19 ♂, 49 ♀ measurements; 19 ♂, 17 ♀ scales
1953	T			1,332	
8/4	A			0	None off mouth

T 7.5 LITTLE TOGIAK CREEK (Little Togiak Lake)

SUMMARY OF SURVEYS

Date	Method & distance	Live	Dead	Total	Remarks
1953					
9/1	A			500	
9/4	G			911	1,750 off mouth
9/13	G			1,332	1,500 off mouth. Approximate peak
1954	T			663	
8/8	G			0	2,000 off mouth
8/20	G			66	2,000-4,000 off mouth
9/18	G			663	500 off mouth. All actively spawning
1955					No surveys
1956	T			3,000	
8/31	A			3,000	To first bend past fork
9/26	G	400	375		10 ♂, 77 ♀ measurements; 9 ♂, 40 ♀ scales. Signs of previously heavy spawning
1957	T			500	
8/8	A			0	Dry above forks
8/27	G				High and muddy
9/16	G			500	Fish in side slough at mouth
1958	T			913	
9/9	G	792	121		11 measurements. Includes 50 in side slough

T 7.5 LITTLE TOGIAK CREEK (Little Togiak Lake)

SUMMARY OF SURVEYS

Date	Method & distance	Live	Dead	Total	Remarks
1958					
9/12	A			650	50 in side slough at mouth
1959	T			1,000	
8/10	A			200	7,500 off mouth. Visibility excellent
9/2	A			1,000	15,000 off mouth. Mostly in lower part
1960	T				No surveys
1961	T				
8/25-9/6	G				11 ♂, 16 ♀ measurements; 11 ♂, 16 ♀ scales
1962	T				No surveys

T 12.4 C CREEK (Little Togiak Lake)

LOCATION: 59°03'30" N. 159°09'36" W.

PREVIOUS NAMES OR NUMBERS:

U.S.G.S. MAP: Goodnews, Alaska, 1:250,000, 1951

PHYSICAL DESCRIPTION

TOTAL LENGTH: 0.25 mile

LENGTH ACCESSIBLE TO SALMON: 0.25 mile

AVERAGE WIDTH: 7' RANGE: 4'-7'

AVERAGE DEPTH: 4" RANGE: 2"-10"

TOTAL ACCESSIBLE SPAWNING AREA: 0.21 acre

POTENTIAL SPAWNING AREA: 100%; 0.21 acre

BOTTOM QUALITY: 90% gravel, 10% small rock

WATERSHED: 0.5 square mile. Flows from flat grassy valley with willows and cottonwoods. No obstructions, and is spring fed.

GRADIENT:

WATER VELOCITY: Average = 1.8 fps.
Range = 1.0-2.2 fps.

FLOW: 2.5 cfs. (Aug. 5, 1960). Low water level. Flow station is at mouth. RANGE:

AIR TEMPERATURE: 11.1° C. (Aug. 5, 1960); 16.5° C. (Aug. 21, 1962)

WATER TEMPERATURE: 4.7° C. (Aug. 5, 1960); 4.5° C. (Aug. 21, 1962)

POOLS AND RIFFLES: None.

T 12.4 C CREEK (Little Togiak Lake)

RED SALMON RUNS

PERCENT OF TOTAL ESCAPEMENT: 0.06%

ESCAPEMENT RANGE: 26-3,000

TIME OF OCCUPANCY: Aug. 6-Aug. 26

PEAK OF SPAWNING: Aug. 12

DISTRIBUTION OF SPAWNERS: Most fish in lower half of the creek.

GENERAL INFORMATION

SHELTER: FRI Lake Nerka cabin.

SURVEY ROUTES AND METHODS: Usually ground surveys.

PERSONAL-USE FISHERY: None observed.

FISH SPECIES: None observed.

WILDLIFE SPECIES: Brown bear, bald eagle.

REMARKS: Very productive creek. Extremely heavy bear predation.

T 12.4 C CREEK (Little Togiak Lake)

SUMMARY OF SURVEYS

Date	Method & distance	Live	Dead	Total	Remarks
1946					No surveys
1947	T			3,000	
9/12	G			3,000	36 off mouth. Extremely heavy run
1948	T			762	
8/16	G			233	2,000 off mouth
9/2	G			762	200 off mouth. 100 ♂, 100 ♀ measurements; 30 ♂, 30 ♀ scales
1949	T			26	
8/16	G			26	125 off mouth. 1 ♂, 4 ♀ scales and measurements
9/4	G			9	8 off mouth
10/2	G				2 off mouth
1950	T			76	
8/10	G			76	75-100 off mouth
9/13	A			0	No sign of fish anywhere
1951	T			328	
8/3	G			154	200-300 off mouth. 14 ♂, 3 ♀ measurements
8/13	G			328	150 off mouth. 34 ♂, 93 ♀ measurements; 20 ♂, 20 ♀ scales

T 12.4 C CREEK (Little Togiak Lake)

SUMMARY OF SURVEYS

Date	Method & distance	Live	Dead	Total	Remarks
1951					
8/15	G			76	25-30 off mouth. 20 ♂ measurements
8/21	G			17	100 off mouth. 32 ♂ measurements
1952	T			306	
8/6	G			260	200 off mouth
8/9	G			271	150-200 off mouth. 14 ♂, 44 ♀ measurements; 20 ♂, 20 ♀ scales
8/15	G			306	60 off mouth. 28 ♂, 59 ♀ measurements; 20 ♂, 20 ♀ scales
8/19	G			305	75 off mouth. 23 ♂ measurements
8/23	G			130	45 off mouth. 6 ♂ measurements
8/30	G		113		12 ♂ measurements
1953	T			51	
8/4	G				100 off mouth
8/19	G			51	25-50 off mouth. 9 ♂, 6 ♀ scales and measurements
1954	T			128	
8/8	G			44	75-100 off mouth. 8 measurements
8/20	G			128	20 off mouth. 30 ♂, 57 ♀ measurements; 20 ♂, 20 ♀ scales

T 12.4 C CREEK (Little Togiak Lake)

SUMMARY OF SURVEYS

Date	Method & distance	Live	Dead	Total	Remarks
1955	T			501	
8/22	G			501	100 off mouth. 51 ♂, 75 ♀ measurements; 20 ♂, 20 ♀ scales. 2-3 weeks past spawning
1956	T			400	
8/26	G	3	382		40 ♂, 100 ♀ measurements; 40 ♂, 60 ♀ scales. Estimated population 400-450 fish
1957	T			100	
8/8	G				100 off mouth
8/27	G				25 off mouth
1958	T			654	
8/7	G				350 off mouth
8/21	G	312	342		18 ♂, 12 ♀ measurements; 15 ♂, 12 ♀ scales. Surveyed to forks. Peak of spawning
9/12	G				150 off mouth
1959	T			2,000	
8/10	G				200 off mouth
8/16	G	1,019	530		300 off mouth. 106 ♂, 103 ♀ measurements; 40 ♂, 40 ♀ scales. Minimum 2,000 in creek. Bear predation very heavy

T 12.4 C CREEK (Little Togiak Lake)

SUMMARY OF SURVEYS

Date	Method & distance	Live	Dead	Total	Remarks
1960	T				
8/17	G				15 ♂, 62 ♀ scales and measurements. Includes a few A Creek fish
1961					
8/13-22	G				22 ♂, 16 ♀ scales, measurements, and otoliths. Some A Creek fish included
1962	T			654	
8/21	G 0.25	202	452		100 off mouth. 64 ♂, 100 ♀ scales and measurements

T 13.2 A CREEK (Little Togiak Lake)

LOCATION: 59° 34'42" N. 159° 08'00" W.

PREVIOUS NAMES OR NUMBERS:

U.S.G.S. MAP: Goodnews, Alaska, 1:250,000, 1951

PHYSICAL DESCRIPTION

TOTAL LENGTH: 0.33 mile

LENGTH ACCESSIBLE TO SALMON: 0.33 mile

AVERAGE WIDTH: 4.5' RANGE: 3.5'-6'

AVERAGE DEPTH: 4" in midstream RANGE: 2"-10"

TOTAL ACCESSIBLE SPAWNING AREA: 0.18 acre

POTENTIAL SPAWNING AREA: 100%; 0.18 acre

BOTTOM QUALITY: 100% gravel

WATERSHED: 0.3 square mile. Flows from flat grassy valley with willows and cottonwoods. No obstructions, and is spring fed.

GRADIENT:

WATER VELOCITY: Average = 1.8 fps.
Range = 1.0-2.2 fps.

FLOW: 1.4 cfs. (Aug. 5, 1960). Low to normal water level. Flow station at mouth. RANGE:

AIR TEMPERATURE: 13.9° C. (Aug. 5, 1960)

WATER TEMPERATURE: 5.0° C. (Aug. 5, 1960); 4.9° C. (Aug. 21, 1962)

POOLS AND RIFFLES: None.

T 13.2 A CREEK (Little Togiak Lake)

RED SALMON RUNS

PERCENT OF TOTAL ESCAPEMENT: 0.01%

ESCAPEMENT RANGE: 5-676

TIME OF OCCUPANCY: Aug. 4-Sept. 4

PEAK OF SPAWNING: Aug. 18

DISTRIBUTION OF SPAWNERS: Fish spread out to head of springs.

GENERAL INFORMATION

SHELTER: FRI Lake Nerka cabin.

SURVEY ROUTES AND METHODS: Usually ground surveys.

PERSONAL-USE FISHERY: None observed.

FISH SPECIES: None observed.

WILDLIFE SPECIES: Brown bear, bald eagle.

REMARKS: A good creek but limited by small flow.

T 13.2 A CREEK (Little Togiak Lake)

SUMMARY OF SURVEYS

Date	Method & distance	Live	Dead	Total	Remarks
1946					No surveys
1947	T			274	
9/12	G	0	274		Too late for survey
1948	T			260	
8/16	G	0	260		500 off mouth
9/2	G		136		None off mouth
1949	T			15	
8/16	G			15	50 off mouth. 5 ♀ measurements
1950					No surveys
1951	T			143	
8/13	G			137	100 off mouth
8/15	G			143	30 off mouth. 48 ♂, 30 ♀ measurements
8/21	G				11 ♂, 13 ♀ measurements
1952	T			62	
8/6	G			62	3 ♂, 8 ♀ measurements
8/9	G			48	5 ♂, 18 ♀ measurements
8/15	G	0	22		75 off mouth. 8 ♂, 10 ♀ measurements
8/18	G			18	25 off mouth. 15 ♂, 25 ♀ measurements

T 13.2 A CREEK (Little Togiak Lake)

SUMMARY OF SURVEYS

Date	Method & distance	Live	Dead	Total	Remarks
1952					
8/23	G			6	30 off mouth
8/30	G			7	12 off mouth
1953	T			50	
7/24	A			0	None off mouth
7/28	G			0	100 off mouth
8/4	G				A few fresh fish at mouth
8/9					Fish entered since Aug. 4
8/10	G			30	Estimated total population 50-75
1954	T			5	
8/8				0	100 off mouth
8/20				5	10 off mouth
1955					No surveys
1956	T				
8/26	G				12 off mouth. No sign of any fish entering
1957	T				
8/27	A				200 off mouth
1958	T			12	
8/7	A				50 off mouth
8/22	G		12		None off mouth. 5 ♂, 7 ♀ scales and measurements

T 13.2 A CREEK (Little Togiak Lake)

SUMMARY OF SURVEYS

Date	Method & distance	Live	Dead	Total	Remarks
1959	T			676	
8/31	G			676	Most dead. Heavy run
9/2	G				200 off mouth
1960	T				
8/17	G				15 ♂, 62 ♀ scales and measurements. Includes some C Creek fish
1961	T				
8/13,14, 16,22					22 ♂, 16 ♀ scales and measurements. Includes some C Creek fish
1962	T			23	
8/21	G 0.33	0	23		50 off mouth

B 0.0 AGULUKPAK RIVER (Connecting Stream)

LOCATION: 59° 35'12" N. 158° 32'00" W.

PREVIOUS NAMES OR NUMBERS: 3rd River

U.S.G.S. MAP: Dillingham, Alaska, 1:250,000, 1951

PHYSICAL DESCRIPTION

TOTAL LENGTH: 1.8 miles

LENGTH ACCESSIBLE TO SALMON: 1.8 miles

AVERAGE WIDTH: 250' RANGE: 200'-350'

AVERAGE DEPTH: 30" in midstream RANGE:

TOTAL ACCESSIBLE SPAWNING AREA: 54.55 acres

POTENTIAL SPAWNING AREA: 80%; 43.64 acres

BOTTOM QUALITY: 30% gravel, 20% boulder, 50% rubble

WATERSHED: 400 square miles. Flows from the east end of Lake Beverley through sloping valley of tundra and trees into the north arm of Lake Nerka. No obstructions.

GRADIENT:

WATER VELOCITY: Range = 3-4 fps.

FLOW: Estimate 2,000 cfs. Normal fall level. Flow station at mouth. RANGE:

AIR TEMPERATURE:

WATER TEMPERATURE:

POOLS AND RIFFLES: One deep area above island.

B 0.0 AGULUKPAK RIVER (Connecting Stream)

RED SALMON RUNS

PERCENT OF TOTAL ESCAPEMENT: 2.25%

ESCAPEMENT RANGE: 2,000-100,000

TIME OF OCCUPANCY: July 14-Sept. 16

PEAK OF SPAWNING: Aug. 26

DISTRIBUTION OF SPAWNERS: Most spawning in upper half of river where best gravel prevails.

GENERAL INFORMATION

SHELTER: John Pearson's cabin at mouth of Agulukpak River.

SURVEY ROUTES AND METHODS: Usually aerial surveys.

PERSONAL-USE FISHERY: None observed.

FISH SPECIES: Significant pink run in some years, rainbow trout, Arctic char.

WILDLIFE SPECIES: Brown bear, bald eagle, moose.

REMARKS: Limited areas of gravel but excellent potential. Major producer since 1955.

B 0.0 AGULUKPAK RIVER (Connecting Stream)

SUMMARY OF SURVEYS

Date	Method & distance	Live	Dead	Total	Remarks
1946	T			2,500	
8/22	G				300-400 off mouth
8/26	G				Few fish in river
1947	T			2,500	
8/4	G				Quite a number at head
8/27	G				None off mouth
1948	T			12,000	
9/1	G			12,000	Almost solid with fish across upper end
9/6	G				Extremely heavy population upper 0.66 mile. 101 ♂, 101 ♀ measurements, 15 ♂, 15 ♀ scales
9/17	G				Many dead off mouth. Mostly males
1949	T			2,000	
9/11	G				Very poor run. 24 ♂, 25 ♀ scales and measurements
1950	T			5,000	
8/29	G				Upper part fairly full of fish
9/5	G				Almost all fish dead. 101 ♂, 101 ♀ measurements; 20 ♂, 20 ♀ scales

AGULUKPAK RIVER (Connecting Stream)

SUMMARY OF SURVEYS

Date	Method & distance	Live	Dead	Total	Remarks
1951	T			4,000	
9/1	G				Peak of spawning. Few dead. 6 ♂ measurements
9/10	G				Not as many as 1950. 94 ♂, 100 ♀ measurements; 20 ♂, 20 ♀ scales
1952	T			4,000	
8/31	G				100 ♂, 40 ♀ scales and measurements
9/7	G		2,000-3,000		60 ♀ scales and measurements
1953	T			20,000	
8/6	A			0	Small school off mouth
8/16	A				Very good run
8/20	A			20,000	Very heavy run, largest seen
9/1	A			15,000	Minimum estimate
9/3	G				234 ♂, 224 ♀ measurements; 60 ♂, 60 ♀ scales. Mouth bars white with dead
9/7	G				172 ♂, 185 ♀ measurements; 60 ♂, 60 ♀ scales. Few active spawners remaining
9/10	G				54 ♂/74 ♀ sex ratio in upper part
1954	T			9,000	
8/12	A			2,000-3,000	Most fish in upper third

B 0.0 AGULUKPAK RIVER (Connecting Stream)

SUMMARY OF SURVEYS

Date	Method & distance	Live	Dead	Total	Remarks
1954					
8/26	A			6,000-8,000	Most fish in upper section
9/9	G		4,100	7,000-8,000	500 off mouth. 149 ♂, 134 ♀ measurements
1955	T			30,000	
8/12	A			Few	None schooled at head
8/17	A			10,000	Good showing in upper part
9/1-15	A			25,000-30,000	Fish in upper part
9/15-16	G				Mostly large fish. 116 ♂, 108 ♀ measurements; 100 ♂, 100 ♀ scales
1956	T			20,500	
8/8	A			4,000-5,000	3,000-4,000 off mouth. Spawning at head of river
8/31	A			20,000	Upper third of river
9/16	A				No live. Most dead washed out
9/17	G				River high. Most washed out. 99 ♂, 218 ♀ measurements; 99 ♂, 100 ♀ scales
9/22	G				33 ♂ measurements

B 0.0 AGULUKPAK RIVER (Connecting Stream)

SUMMARY OF SURVEYS

Date	Method & distance	Live	Dead	Total	Remarks
1957	T			22,000	
8/8	A			2,600	Upper third of river
8/20	A			20,000	2,000 off mouth. Upper third of river
9/9					Several thousand. 3,000 dead off mouth
9/12	G				173 ♂, 110 ♀ measurements; 100 ♂, 100 ♀ scales. 15 additional .2 male scales
1958	T			30,000	
8/17	A			5,000	Visibility not good
8/29	A			16,000	Heavy spawning but not total utilization of river
9/1	A			27,000	Fish in upper part
9/6	G				Dead plentiful. 200 ♂, 200 ♀ measurements; 100 ♂, 100 ♀ scales
1959	T			100,000	
7/6	A			0	
7/14	A			1,200	12,000 off mouth. "Total" fish schooled at outlet
8/16	A			60,000	10,000 off mouth. Nearly all in upper part
8/27	A			100,000	

B 0.0 AGULUKPAK RIVER (Connecting Stream)

SUMMARY OF SURVEYS

Date	Method & distance	Live	Dead	Total	Remarks
1959					
8/29	G				Many .3 fish. Measured up to island. 230 ♂, 126 ♀ measurements; 100 ♂, 100 ♀ scales
9/8	G				River low and full of fish. 100 ♀ measurements
1960	T			51,000	
8/28	A			51,000	
8/31	G				Peak of spawning. Heavy dead. 155 ♂, 153 ♀ measurements; 100 ♂, 100 ♀ scales; 50 ♂, 50 ♀ otoliths
9/16	G				All fish dead. 50 ♂, 50 ♀ measurements
1961	T			90,000	
8/28	A			90,000	
9/1	G				Deep carpets of dead off mouth. 200 ♂, 200 ♀ scales and measurements; 100 ♂, 100 ♀ otoliths
9/3-5	G		10,279		Recovered off mouth and banks and observed for FRI tags
1962	T			29,700	
8/30	A			29,700	
9/3	G				About 50% .3 fish. 100 ♂, 100 ♀ scales, measurements, and otoliths

B 11.4 B-9 CREEK (Lake Beverley)

LOCATION: 59° 39'06" N. 158° 47'00" W.

PREVIOUS NAMES OR NUMBERS:

U.S.G.S. MAP: Dillingham, Alaska, 1:250,000, 1951

PHYSICAL DESCRIPTION

TOTAL LENGTH: 1.5 miles

LENGTH ACCESSIBLE TO SALMON: 1.5 miles

AVERAGE WIDTH: 8' RANGE: 5'-10'

AVERAGE DEPTH: 10" RANGE: 7"-16"

TOTAL ACCESSIBLE SPAWNING AREA: 1.45 acres

POTENTIAL SPAWNING AREA: 10%; 0.15 acre

BOTTOM QUALITY: 50% gravel, 50% rubble

WATERSHED: 1 square mile. Flows from steep mountainside. Mouth of creek surrounded by willows.

GRADIENT:

WATER VELOCITY: Average = 3.2 fps.
Range = 2.8-3.8 fps.

FLOW: 17.3 cfs. (Aug. 2, 1960). High water level. Flow station at mouth. RANGE:

AIR TEMPERATURE: 19.7° C. (Aug. 2, 1960)

WATER TEMPERATURE: 8.1° C. (Aug. 2, 1960)

POOLS AND RIFFLES: Few rocky deep areas.

B 11.4 B-9 CREEK (Lake Beverley)

RED SALMON RUNS

PERCENT OF TOTAL ESCAPEMENT: < 0.01%

ESCAPEMENT RANGE: Few or none.

TIME OF OCCUPANCY: Not observed.

PEAK OF SPAWNING: Not observed.

DISTRIBUTION OF SPAWNERS: Probably very few fish enter creek.

GENERAL INFORMATION

SHELTER: Roger Maves's cabin at Peace River.

SURVEY ROUTES AND METHODS: Rarely surveyed.

PERSONAL-USE FISHERY: None observed.

FISH SPECIES: None observed.

WILDLIFE SPECIES: None observed.

REMARKS: Poor spawning stream due to swiftness, poor gravel, and runoff fluctuations.

B 13.2 B-12 CREEK (Lake Beverley)

LOCATION: 59°40'42" N. 158°48'48" W.

PREVIOUS NAMES OR NUMBERS:

U.S.G.S. MAP: Dillingham, Alaska, 1:250,000, 1951

PHYSICAL DESCRIPTION

TOTAL LENGTH: 2.5 miles

LENGTH ACCESSIBLE TO SALMON: Probably accessible for 0.5 mile

AVERAGE WIDTH: 12' RANGE: 10'-22'

AVERAGE DEPTH: 17" RANGE: 10"-26"

TOTAL ACCESSIBLE SPAWNING AREA: 0.73 acre

POTENTIAL SPAWNING AREA: 65%; 0.47 acre

BOTTOM QUALITY: 90% gravel, 10% sand. Probably more rubble in upper part.

WATERSHED: 3 square miles. Flows from mountain situated 2 miles from the lake through fairly level region of willow, alder, and cottonwood to Lake Beverley.

GRADIENT:

WATER VELOCITY: Average = 3.0 fps.
Range = 2.5-3.8 fps.

FLOW: 74.9 cfs. (Aug. 2, 1960). High water level. Flow station at mouth. RANGE:

AIR TEMPERATURE: 19.7° C. (Aug. 2, 1960)

WATER TEMPERATURE: 8.1° C. (Aug. 2, 1960)

POOLS AND RIFFLES: Several narrow deep areas in creek.

B 13.2 B-12 CREEK (Lake Beverley)

RED SALMON RUNS

PERCENT OF TOTAL ESCAPEMENT: < 0.01%

ESCAPEMENT RANGE: None or few.

TIME OF OCCUPANCY: Not observed.

PEAK OF SPAWNING: Not observed.

DISTRIBUTION OF SPAWNERS: Lower portion of creek.

GENERAL INFORMATION

SHELTER: Roger Maves's cabin at Peace River.

SURVEY ROUTES AND METHODS: Rarely surveyed.

PERSONAL-USE FISHERY: None observed.

FISH SPECIES: None observed.

WILDLIFE SPECIES: None observed.

REMARKS: Good gravel but poor spawning stream due to runoff fluctuations and water velocity.

B 18.6 SILVER HORN CREEK (Lake Beverley)

LOCATION: 59° 40' 30" N. 158° 56' 12" W.

PREVIOUS NAMES OR NUMBERS:

U.S.G.S. MAP: Dillingham, Alaska, 1:250,000, 1951

PHYSICAL DESCRIPTION

TOTAL LENGTH: 4.0 miles

LENGTH ACCESSIBLE TO SALMON: 4.0 miles

AVERAGE WIDTH: 35' below forks RANGE: 25'-40'

AVERAGE DEPTH: 24" RANGE: 18"-48" below forks

TOTAL ACCESSIBLE SPAWNING AREA: 16.97 acres

POTENTIAL SPAWNING AREA: 85%; 14.42 acres

BOTTOM QUALITY: 50% gravel, 30% rubble, 10% rock, 10% sand

WATERSHED: 14 square miles. Drains a long mountain valley (west branch) and ice fields from Mt. Akuluktok (south branch). No obstructions.

GRADIENT:

WATER VELOCITY: Average = 3.0 fps.
Range - 2.7-3.4 fps.

FLOW: 142.1 cfs. (Aug. 3, 1960). High water level. Flow station one-fourth mile upstream from mouth. RANGE:

AIR TEMPERATURE: 10.1° C. (Aug. 3, 1960)

WATER TEMPERATURE: 6.4° C. (Aug. 3, 1960)

POOLS AND RIFFLES: Numerous pools of temporary nature.

B 18.6 SILVER HORN CREEK (Lake Beverley)

RED SALMON RUNS

PERCENT OF TOTAL ESCAPEMENT: < 0.01%

ESCAPEMENT RANGE: None or few.

TIME OF OCCUPANCY: Not well documented.

PEAK OF SPAWNING: Not observed.

DISTRIBUTION OF SPAWNERS: Only two years of spawning, 1947 and 1949.

GENERAL INFORMATION

SHELTER: Roger Maves's cabin at Peace River.

SURVEY ROUTES AND METHODS: Rarely surveyed.

PERSONAL-USE FISHERY: None observed.

FISH SPECIES: None observed.

WILDLIFE SPECIES: Brown bear.

REMARKS: Many areas of good gravel but reportedly goes dry in winter.

B 32.6 TSUN CREEK (Lake Beverley)

LOCATION: 59° 43' 30" N. 159° 02' 00" W.

PREVIOUS NAMES OR NUMBERS:

U.S.G.S. MAP: Goodnews, Alaska, 1:250,000, 1951

PHYSICAL DESCRIPTION

TOTAL LENGTH: 6.5 miles

LENGTH ACCESSIBLE TO SALMON: > 3 miles

AVERAGE WIDTH: 50' RANGE: 35'-70'

AVERAGE DEPTH: 18" RANGE: 12"-96"

TOTAL ACCESSIBLE SPAWNING AREA: 18.18 acres

POTENTIAL SPAWNING AREA: 65%; 11.82 acres

BOTTOM QUALITY: 90% gravel, 10% sand

WATERSHED: 12 square miles. Long gravelly creek draining Rainbow Basin. Beaver dams in upper areas.

GRADIENT:

WATER VELOCITY: Average = 2.75 fps.
Range = 2.2-3.5 fps.

FLOW: 169 cfs. (Aug. 1, 1960). High water level. Flow station one-half mile upstream from mouth. RANGE:

AIR TEMPERATURE: 12.5° C. (Aug. 1, 1960)

WATER TEMPERATURE: 3.9° C. (Aug. 1, 1960)

POOLS AND RIFFLES: Frequent deep pools.

B 32.6 TSUN CREEK (Lake Beverley)

RED SALMON RUNS

PERCENT OF TOTAL ESCAPEMENT: < 0.01%

ESCAPEMENT RANGE: 0-4,000

TIME OF OCCUPANCY: Aug. 20-Sept. 20

PEAK OF SPAWNING: Sept. 1

DISTRIBUTION OF SPAWNERS: Most spawning in lower sections of creek.

GENERAL INFORMATION

SHELTER: FRI Golden Horn cabin.

SURVEY ROUTES AND METHODS: Usually aerial surveys.

PERSONAL-USE FISHERY: None observed.

FISH SPECIES: Rainbow trout, grayling.

WILDLIFE SPECIES: Brown bear, beaver.

REMARKS: Extensive areas of excellent gravel but production limited by low water levels in winter.

B 32.6 TSUN CREEK (Lake Beverley)

SUMMARY OF SURVEYS

Date	Method & distance	Live	Dead	Total	Remarks
1946	T			4,000	
9/2	A 3.5			4,000	
1947	T			1,666	
8/29	G 0.1			351	19 measurements
9/9	G 2.5			1,666	97 measurements
9/16	G				472 measurements; 60 scales. Measured 189 on beach, 124 in creek
1948	T			1,793	
8/28	G 2.0			1,793	To head of spawning
9/11	G		151		96 measurements; 30 scales
1949-50)					No surveys
1951	T			500	
9/11	A			500	Mouth to beaver dam
1952	T				No surveys
1953	T			10	
9/1	G			10	
1954	T			98	
9/12	G			98	
1955	T			23	
9/7	A			23	

B 32.6 TSUN CREEK (Lake Beverley)

SUMMARY OF SURVEYS

Date	Method & distance	Live	Dead	Total	Remarks
1956	T			0	
8/31	G			0	
1957	T			0	
9/16	A			0	
1958	T			20	
8/29	A			20	
1959	T			0	
8/27	A			0	1,200 schooled in Golden Horn
1960-61	T				No surveys
1962	T			1,428	
8/28	G 3.5	1,426	2		Prior to peak of spawning

B 35.5 B-10 CREEK (Lake Beverley)

LOCATION: 59° 44' 06" N. 158° 57' 12" W.

PREVIOUS NAMES OR NUMBERS:

U.S.G.S. MAP: Dillingham, Alaska, 1:250,000, 1951

PHYSICAL DESCRIPTION

TOTAL LENGTH: 2 miles

LENGTH ACCESSIBLE TO SALMON: Probably 0.5 mile or more

AVERAGE WIDTH: 25' RANGE: 20'-45'

AVERAGE DEPTH: 13" RANGE: 10"-36"

TOTAL ACCESSIBLE SPAWNING AREA: 1.54 acres

POTENTIAL SPAWNING AREA: 20%; 0.30 acre

BOTTOM QUALITY: 80% gravel, 10% rubble, 10% sand

WATERSHED: 5.7 square miles. Flows diagonally down the side of a mountain ridge and through level shore before entering lake. No obstructions in lower section.

GRADIENT:

WATER VELOCITY: Average = 2.8 fps.
Range = 2.6-3.5 fps.

FLOW: 118.3 cfs. (Aug. 1, 1960). High water level. Flow station at mouth. RANGE:

AIR TEMPERATURE: 11.7° C. (Aug. 1, 1960)

WATER TEMPERATURE: 6.4° C. (Aug. 1, 1960)

POOLS AND RIFFLES: No pools of significant size.

B 35.5 B-10 CREEK (Lake Beverley)

RED SALMON RUNS

PERCENT OF TOTAL ESCAPEMENT: < 0.01%

ESCAPEMENT RANGE: Few fish.

TIME OF OCCUPANCY: Not observed.

PEAK OF SPAWNING: Not observed.

DISTRIBUTION OF SPAWNERS: Only an occasional fish seen off mouth or in creek.

GENERAL INFORMATION

SHELTER: Roger Maves's cabin at Peace River.

SURVEY ROUTES AND METHODS: Rarely surveyed.

PERSONAL-USE FISHERY: None observed.

FISH SPECIES: None observed.

WILDLIFE SPECIES: None observed.

REMARKS: Good gravel but production limited by runoff fluctuations.
Counts of fish included with Golden Horn beaches.

B 43.5 B-6 CREEK (Lake Beverley)

LOCATION: 59° 42' 00" N. 158° 45' 48" W.

PREVIOUS NAMES OR NUMBERS:.

U.S.G.S. MAP: Dillingham, Alaska, 1:250,000, 1951

PHYSICAL DESCRIPTION

TOTAL LENGTH: 3.7 miles

LENGTH ACCESSIBLE TO SALMON: 3.7 miles

AVERAGE WIDTH: 15' RANGE: 12'-27'

AVERAGE DEPTH: 12" RANGE: 10"-30"

TOTAL ACCESSIBLE SPAWNING AREA: 6.73 acres

POTENTIAL SPAWNING AREA: 100%; 6.73 acres

BOTTOM QUALITY: 90% gravel, 10% sand

WATERSHED: 3 square miles. Flows from mountains 2 miles back from the lake through forested area to the shore of Lake Beverley. No obstructions.

GRADIENT:

WATER VELOCITY: Average = 3.1 fps.
Range = 2.5-3.5 fps.

FLOW: 86.5 cfs. (Aug. 2, 1960). High water level. Flow station at mouth. RANGE:

AIR TEMPERATURE: 21.7° C. (Aug. 2, 1960)

WATER TEMPERATURE: 9.4° C. (Aug. 2, 1960); 8.0° C. (Aug. 27, 1962)

POOLS AND RIFFLES:

B 43.5 B-6 CREEK (Lake Beverley)

RED SALMON RUNS

PERCENT OF TOTAL ESCAPEMENT: < 0.01%

ESCAPEMENT RANGE: ?-291

TIME OF OCCUPANCY: Aug. 8-Aug. 20

PEAK OF SPAWNING: Approximately Aug. 13

DISTRIBUTION OF SPAWNERS: Many fish seen off mouth and are probably beach spawners. Most fish spawn in lower area of creek.

GENERAL INFORMATION

SHELTER: Roger Maves's cabin at Peace River.

SURVEY ROUTES AND METHODS: Rarely surveyed.

PERSONAL-USE FISHERY: None observed.

FISH SPECIES: None observed.

WILDLIFE SPECIES: Brown bear, bald eagle.

REMARKS: Fairly good gravel but subjected to extreme low water in winter and to spring flooding. Very heavy bear predation.

B 43.5

B-6 CREEK (Lake Beverley)

SUMMARY OF SURVEYS

Date	Method & distance	Live	Dead	Total	Remarks
1946- 61					No surveys
1962	T			291	
8/27	G 0.5	4	287		Heavy bear predation

B 44.5 B-5 CREEK (Lake Beverley)

LOCATION: 59°41'48" N. 158°44'30" W.

PREVIOUS NAMES OR NUMBERS:

U.S.G.S. MAP: Dillingham, Alaska, 1:250,000, 1951

PHYSICAL DESCRIPTION

TOTAL LENGTH: 1 mile

LENGTH ACCESSIBLE TO SALMON: 1 mile

AVERAGE WIDTH: 8' RANGE: 6'-10'

AVERAGE DEPTH: 10" RANGE: 7"-18"

TOTAL ACCESSIBLE SPAWNING AREA: 0.97 acre

POTENTIAL SPAWNING AREA: 95%; 0.92 acre

BOTTOM QUALITY: 90% gravel, 10% sand

WATERSHED: 0.75 square mile. Flows from mountainside 2 miles back from lake through forested area to Lake Beverley. No obstructions.

GRADIENT:

WATER VELOCITY: Average = 1.0 fps.
Range = 0.8-1.4 fps.

FLOW: 5.0 cfs. (Aug. 2, 1960). Water level above normal. Flow station at mouth. RANGE:

AIR TEMPERATURE: 20.0° C. (Aug. 2, 1960)

WATER TEMPERATURE: 12.8° C. (Aug. 2, 1960); 8.9° C. (Aug. 27, 1962)

POOLS AND RIFFLES: No pools.

B 44.5 B-5 CREEK (Lake Beverley)

RED SALMON RUNS

PERCENT OF TOTAL ESCAPEMENT: < 0.01%

ESCAPEMENT RANGE: ?-521

TIME OF OCCUPANCY: July 28-Aug. 15

PEAK OF SPAWNING: Approximately Aug. 10

DISTRIBUTION OF SPAWNERS: Spawning in lower 200 yards.

GENERAL INFORMATION

SHELTER: Roger Maves's cabin at Peace River.

SURVEY ROUTES AND METHODS: Rarely surveyed.

PERSONAL-USE FISHERY: None observed.

FISH SPECIES: None observed.

WILDLIFE SPECIES: Brown bear, bald eagle.

REMARKS: Fairly good spawning gravel but very shallow and subject to heavy bear predation.

B-5 CREEK (Lake Beverley)

SUMMARY OF SURVEYS

Date	Method & distance	Live	Dead	Total	Remarks
1946-61					No surveys
1962	T			521	
8/27	G 0.5	5	516		Heavy bear predation

B 44.7 B-4 CREEK (Lake Beverley)

LOCATION: 59°41'48" N. 158°44'00" W.

PREVIOUS NAMES OR NUMBERS:

U.S.G.S. MAP: Dillingham, Alaska, 1:250,000, 1951

PHYSICAL DESCRIPTION

TOTAL LENGTH: 0.75 mile

LENGTH ACCESSIBLE TO SALMON: 0.75 mile

AVERAGE WIDTH: 8' RANGE: 6'-11'

AVERAGE DEPTH: 10" RANGE: 8"-14"

TOTAL ACCESSIBLE SPAWNING AREA: 0.73 acre

POTENTIAL SPAWNING AREA: 100%; 0.73 acre

BOTTOM QUALITY: 70% large gravel and rubble, 30% sand

WATERSHED: 0.5 square mile. Flows through flat forested area of willow and alder. Partially spring fed. No obstructions.

GRADIENT:

WATER VELOCITY: Average = 2.2 fps.
Range = 2.0-2.5 fps.

FLOW: 11.3 cfs. (Aug. 2, 1960). Water level high. Flow station at mouth. RANGE:

AIR TEMPERATURE: 22.8° C. (Aug. 2, 1960)

WATER TEMPERATURE: 11.1° C. (Aug. 2, 1960); 8.1° C. (Aug. 27, 1962)

POOLS AND RIFFLES: No pools.

B 44.7 B-4 CREEK (Lake Beverley)

RED SALMON RUNS

PERCENT OF TOTAL ESCAPEMENT: <0.01%

ESCAPEMENT RANGE: ?-273

TIME OF OCCUPANCY: Approximately July 28-Aug. 15

PEAK OF SPAWNING: Approximately Aug. 15

DISTRIBUTION OF SPAWNERS: Most fish spawn in lower 0.5 mile.

GENERAL INFORMATION

SHELTER: Roger Maves's cabin at Peace River.

SURVEY ROUTES AND METHODS: Rarely surveyed.

PERSONAL-USE FISHERY: None observed.

FISH SPECIES: None observed.

WILDLIFE SPECIES: Brown bear, bald eagle.

REMARKS: Very heavy bear predation.

B 44.7 B-4 CREEK (Lake Beverley)

SUMMARY OF SURVEYS

Date	Method & distance	Live	Dead	Total	Remarks
1946-61					No surveys
1962	T			273	
8/27	G 0.5	1	272		Heavy bear predation

B 52.9 HOPE CREEK (Lake Beverley)

LOCATION: 59°39'18" N. 158°36'18" W.

PREVIOUS NAMES OR NUMBERS:

U.S.G.S. MAP: Dillingham, Alaska, 1:250,000, 1951

PHYSICAL DESCRIPTION

TOTAL LENGTH: 6.6 miles

LENGTH ACCESSIBLE TO SALMON: 6.6 miles (Beaver dams may limit length accessible).

AVERAGE WIDTH: 31'5" RANGE: 21'-52'

AVERAGE DEPTH: 26" RANGE: 10"-42"

TOTAL ACCESSIBLE SPAWNING AREA: 25.12 acres

POTENTIAL SPAWNING AREA: 65%; 16.33 acres

BOTTOM QUALITY: 80% gravel, 20% sand, and mud

WATERSHED: Drains flat forested and tundra areas. Beaver dams act as partial blockage to salmon in some years.

GRADIENT:

WATER VELOCITY:

FLOW: 32.5 cfs (Aug. 29, 1962) RANGE:

AIR TEMPERATURE: 16.1° C. (Aug. 29, 1962)

WATER TEMPERATURE: 14.5° C. (Aug. 29, 1962)

POOLS AND RIFFLES:

B 52.9 HOPE CREEK (Lake Beverley)

RED SALMON RUNS

PERCENT OF TOTAL ESCAPEMENT:

ESCAPEMENT RANGE: 50-7,000

TIME OF OCCUPANCY:

PEAK OF SPAWNING: Approximately Aug. 15

DISTRIBUTION OF SPAWNERS:

GENERAL INFORMATION

SHELTER: Roger Maves's cabin at Peace River.

SURVEYS ROUTES AND METHODS: Usually aerial surveys.

PERSONAL-USE FISHERY: None observed.

FISH SPECIES: None observed.

WILDLIFE SPECIES: Brown bear, beaver.

REMARKS: Recently realized as a productive stream. Very little information gathered.

B 52.9 HOPE CREEK (Lake Beverley)

SUMMARY OF SURVEYS

Date	Method & distance		Live	Dead	Total	Remarks
1946-54						No surveys
1955	T				4,000	
	A				4,000	
1956	T				400	
	A				400	
1957	T				50	
8/8	A				50	
1958	T				1,200	
8/17	A				1,200	
1959-60						No surveys
1961	T				50	
8/16	A				50	
1962	T				7,000	
8/19	A				7,000	
8/29	G	1.5	24	553		Well past peak of spawning. Most fish dead

B 53.7 MOOSE CREEK (Lake Beverley)

LOCATION: 59°38'54" N. 158°35'18" W.

PREVIOUS NAMES OR NUMBERS:

U.S.G.S. MAP: Dillingham, Alaska, 1:250,000, 1951

PHYSICAL DESCRIPTION

TOTAL LENGTH: 6 miles (Longest branch)

LENGTH ACCESSIBLE TO SALMON: 6 miles (Most years)

AVERAGE WIDTH: 60' RANGE: 30'-80'

AVERAGE DEPTH: 22" RANGE: 18"-60"

TOTAL ACCESSIBLE SPAWNING AREA: 43.64 acres

POTENTIAL SPAWNING AREA: 60%; 26.18 acres

BOTTOM QUALITY: 70% gravel, 10% rubble, 20% sand, mud, and clay. A few boulders in section 0.5 mile upstream.

WATERSHED: 11 square miles. Drains flat mixed forested and tundra areas. Some beaver dams.

GRADIENT:

WATER VELOCITY: Average = 2.5 fps
Range = 1.2-3.0 fps

FLOW: 336 cfs (Aug. 4, 1960). Very high water level. RANGE:
125 cfs (Aug. 19, 1961). Normal fall water level. Flow station at mouth.

AIR TEMPERATURE: 12.2° C. (Aug. 4, 1960); 18.0° C. (Aug. 28, 1962)

WATER TEMPERATURE: 11.7° C. (Aug. 4, 1960); 13.1° C. (Aug. 28, 1962)

POOLS AND RIFFLES: Several pools formed by beaver dams.

B 53.7 MOOSE CREEK (Lake Beverley)

RED SALMON RUNS

PERCENT OF TOTAL ESCAPEMENT: 0.22%

ESCAPEMENT RANGE: 200-11,000

TIME OF OCCUPANCY: Aug. 5-Sept. 1

PEAK OF SPAWNING: Aug. 15

DISTRIBUTION OF SPAWNERS: Heaviest spawning in middle section.

GENERAL INFORMATION

SHELTER: Roger Maves's cabin at Peace River.

SURVEY ROUTES AND METHODS: Primarily aerial surveys.

PERSONAL-USE FISHERY: None observed.

FISH SPECIES: Grayling, rainbow trout.

WILDLIFE SPECIES: Brown bear, bald eagle, beaver.

REMARKS: Slow moving stream but capable of good production. Water usually colored.

B 53.7 MOOSE CREEK (Lake Beverley)

SUMMARY OF SURVEYS

Date	Method & distance	Live	Dead	Total	Remarks
1946-54					No surveys
1955	T			8,000	
8/17	A				3,000-4,000 off mouth. No flight over upper creek
1956	T			1,700	
8/8	A			1,700	Visibility poor
1957	T			625	
8/8	A			600	Fish very scattered
1958	T			200	
8/17	A			200	Creek very muddy
1959	T			1,000	
8/16	A	900	100		
9/3					Scattered dead along creek
1960	T			2,000	
8/18	A			2,000	
1961	T			2,000	
8/16	A			2,000	
1962	T			11,000	
8/19	A			11,000	
8/29	G 2.5	358	2,068		Too late for sampling. Sample around Aug. 15

M 0.0 PEACE RIVER (Connecting Stream)

LOCATION: 59° 43'00" N. 158° 50'12" W.

PREVIOUS NAMES OR NUMBERS: 4th River

U.S.G.S. MAP: Dillingham, Alaska, 1:250,000, 1951

PHYSICAL DESCRIPTION

TOTAL LENGTH: 1.8 miles

LENGTH ACCESSIBLE TO SALMON: 1.8 miles

AVERAGE WIDTH: 250' RANGE: 220'-300'

AVERAGE DEPTH: 36" RANGE: 6"-120"

TOTAL ACCESSIBLE SPAWNING AREA: 54.55 acres

POTENTIAL SPAWNING AREA: 50%; 27.28 acres

BOTTOM QUALITY: 60% gravel, 30% sand, 10% boulders

WATERSHED: 310 square miles. Flows from Lake Mikchalk in a wide flat valley of tundra and spruce. No obstructions.

GRADIENT:

WATER VELOCITY: Average = 1.7 fps.
Range = 1.2-2.2 fps.

FLOW: 1189.9 cfs. (Sept. 3, 1960). High water level. Flow station one-half mile up from mouth. RANGE:

AIR TEMPERATURE: 12.8° C. (Sept. 3, 1960)

WATER TEMPERATURE: 12.8° C (Sept. 3, 1960)

POOLS AND RIFFLES: No distinct pools but many deeper areas.

M 0.0 PEACE RIVER (Connecting Stream)

RED SALMON RUNS

PERCENT OF TOTAL ESCAPEMENT: 0.39%

ESCAPEMENT RANGE: 0-14,000

TIME OF OCCUPANCY: July 14-Sept. 18

PEAK OF SPAWNING: Aug. 28

DISTRIBUTION OF SPAWNERS: Heaviest spawning generally about the middle of the river.

GENERAL INFORMATION

SHELTER: Roger Maves's cabin at Peace River.

SURVEY ROUTES AND METHODS: Ground surveys in earlier years, aerial surveys in later years.

PERSONAL-USE FISHERY: None observed.

FISH SPECIES: Occasional pinks, rainbow trout, Arctic char, and grayling.

WILDLIFE SPECIES: Brown bear.

REMARKS: Many good gravel areas in river. Limited by shifting sand in upper part, large rocks in lower part.

M 0.0 PEACE RIVER (Connecting stream)

SUMMARY OF SURVEYS

Date	Method & distance	Live	Dead	Total	Remarks
1946	T			8,000	
8/30	G			8,000	
1947	T			10,000	
9/1	G	Many	100		
9/10	G 0.3		926		100 ♂, 100 ♀ measurements; 60 scales
1948	T			3,000	
9/8	G		321		Mouth to second bend upstream. 60 ♂, 104 ♀ measurements; 30 scales
1949	T			50	
9/7	G	6	0	6	Water very high. Visibility poor
1950	T			1,000	
9/6	G				100 ♂, 100 ♀ measurements; 20 ♂, 20 ♀ scales
1951	T			500	
9/11	G			500	85 ♂, 100 ♀ measurements; 20 ♂, 20 ♀ scales. Estimated half of 1950 total
1952	T			250	
9/11	G				36 ♂, 87 ♀ measurements; 20 ♂, 20 ♀ scales
9/18	G				4 ♂, 13 ♀ measurements
1953	T			50	

M 0.0 PEACE RIVER (Connecting Stream)

SUMMARY OF SURVEYS

Date	Method & distance	Live	Dead	Total	Remarks
1953					
9/5	G	20	4		Believed to be good counts
9/8	G	11	4		2 ♂, 1 ♀ scales and measurements, believed to be good counts
1954	T			1,000	
8/26	A 1.8			8,000-10,000	Most fish in upper part
9/12	G			338	Count made by boat. Estimated total 1,000. 86 ♂, 98 ♀ measurements, 20 ♂, 20 ♀ scales
9/15	G		200		
1955	T			5,000	
7/26	G			0	3,000 off mouth
8/12	G				<5,000 off mouth
8/24	G			300-500	
9/17	G			420	Survey made from boat. 95 ♂, 100 ♀ measurements; 20 ♂, 20 ♀ scales
1956	T			25	
8/8	A 1.8			2	
8/31	A 1.8			25	
9/18	G	4	5		
1957	T			0	No fish seen on any survey

M 0.0 PEACE RIVER (Connecting Stream)

SUMMARY OF SURVEYS

Date	Method & distance	Live	Dead	Total	Remarks
1958	T			11,000	
9/16	G				Sample taken from Sam's beach, but 95% 4th River fish. 210 ♂, 225 ♀ measurements; 60 ♂, 60 ♀ scales
	A 1.8			11,000	
1959	T			12,000	
8/16	A 1.8			12,000	
9/8	G				103 ♂, 101 ♀ measurements, 60 ♂, 60 ♀ scales. Sample taken from Sam's Beach
1960	T			11,000	
8/18	A 1.8			11,000	
9/12	G				100 ♂, 100 ♀ scales and measurements. Sample taken from Sam's beach
1961	T			700	
8/16	A			700	
1962	T			14,000	
8/16	A 1.8			14,000	
9/20	G				Very good run. Most fish in upper sections. 100 ♂, 100 ♀ scales, measurements and otoliths

K 0.0 WIND RIVER (Connecting Stream)

LOCATION: 59° 45'24" N. 158° 53'24" W.

PREVIOUS NAMES OR NUMBERS: 5th River

U.S.G.S. MAP: Dillingham, Alaska, 1:250,000, 1951

PHYSICAL DESCRIPTION

TOTAL LENGTH: 2 miles

LENGTH ACCESSIBLE TO SALMON: 2 miles

AVERAGE WIDTH: 125' RANGE: 100'-200'

AVERAGE DEPTH: 36" RANGE: 2'-15' (Midstream)

TOTAL ACCESSIBLE SPAWNING AREA: 30.30 acres

POTENTIAL SPAWNING AREA: 75%; 22.72 acres

BOTTOM QUALITY: 50% rubble, 30% gravel, 20% boulder

WATERSHED: 205 square miles. Drains Lakes Kulik and Grant through old glacial valley. River is in approximate center of valley. No obstructions.

GRADIENT:

WATER VELOCITY: Average = 3.0 fps.
Range = 0.8-4.0 fps.

FLOW: 960 cfs. (July 21, 1961). High water level. Flow station at FRI Lake Kulik cabin. RANGE:

AIR TEMPERATURE: See 1961 Lake Kulik weather log in FRI library.

WATER TEMPERATURE: See 1961 Lake Kulik weather log in FRI library.

POOLS AND RIFFLES: Several large pools, largest just below outlet rapids.

K 0.0 WIND RIVER (Connecting Stream)

RED SALMON RUNS

PERCENT OF TOTAL ESCAPEMENT: 0.12%

ESCAPEMENT RANGE: 35-5,300

TIME OF OCCUPANCY: July 1-Sept. 15

PEAK OF SPAWNING: Aug. 28

DISTRIBUTION OF SPAWNERS: Most spawning at head of river near FRI Lake Kulik cabin.

GENERAL INFORMATION

SHELTER: FRI Lake Kulik cabin

SURVEY ROUTES AND METHODS: Mostly aerial surveys.

PERSONAL-USE FISHERY: None observed.

FISH SPECIES: Many chums, some kings, few silvers and pinks, Arctic char, grayling, and rainbow trout.

WILDLIFE SPECIES: Brown bear.

REMARKS: Limited by poor gravel size.

K 0.0 WIND RIVER (Connecting Stream)

SUMMARY OF SURVEYS

Date	Method & distance	Live	Dead	Total	Remarks
1946					No data
1947	T			3,500	
9/2	G				Fish paired and spawning
1948	T			1,000	
8/17	G				Very few fish
8/27	G				Very few fish
9/2	G				Spawning in pool just below outlet
1949	T			600	
8/24	A 2.0			600	Lower River. None at mouth
9/7	G				No fish in lower river
1950	T			50	
7/29	G				Considerable numbers of fish migrating upstream
1951	T			50	
9/15	G	1	0		Water high and visibility poor
1952	T			50	
9/9	G			40-50	Very few spawning fish
1953	T			50	
9/10	G				No fish seen in river

K 0.0 WIND RIVER (Connecting Stream)

SUMMARY OF SURVEYS

Date	Method & distance	Live	Dead	Total	Remarks
1954	T			300	
8/26	A 2.0	300	0		200 fish in upper part. 100 fish in lower part
1955	T			3,200	
8/24	A 2.0			3,200	
1956	T			300	
8/8	A 2.0			50	
8/16	A 2.0			0	
8/28	A 2.0			50	
8/31	A 2.0			300	
9/16	A 2.0			0	
1957	T			35	
8/8	A 2.0			25	
8/12	A 2.0			35	
1958	T			1,300	
8/17	A 2.0			500	Visibility poor
8/29	A 2.0			1,100	
9/11	A 2.0			500	
1959	T			3,200	
7/6	A 2.0				Small schools off mouth
7/14	A 2.0			100	
8/16	A 2.0			3,200	Most fish in upper pool
8/27	A 2.0			2,150	Visibility good

K 0.0 WIND RIVER (Connecting Stream)

SUMMARY OF SURVEYS

Date	Method & distance	Live	Dead	Total	Remarks
1960	T			540	
8/28	A 2.0			540	
9/13	G				100 ♂, 100 ♀ scales and measurements. Approximately 40% of these are Lake Mikchalk fish
1961	T			1,300	
8/28	A 2.0			1,300	
1962	T			5,300	
8/30	A 2.0			5,300	

K 3.6 K-1 CREEK (Lake Kulik)

LOCATION: 59°47'06" N. 159°00'06" W.

PREVIOUS NAMES OR NUMBERS:

U.S.G.S. MAP: Goodnews, Alaska, 1:250,000, 1951

PHYSICAL DESCRIPTION

TOTAL LENGTH: 9 miles

LENGTH ACCESSIBLE TO SALMON: Probably accessible for 4-5 miles.

AVERAGE WIDTH: 55'4" RANGE: 60'-100' when not branched

AVERAGE DEPTH: 35" RANGE: 2.5'-12' in midstream

TOTAL ACCESSIBLE SPAWNING AREA: 60.27 acres

POTENTIAL SPAWNING AREA: 70%; 42.19 acres

BOTTOM QUALITY: 70% gravel, 30% sand, trace of clay and mud.

WATERSHED: 23.8 square miles. Drains mountain basin and snowfields. No obstructions in lower half of creek but many sunken branches.

GRADIENT:

WATER VELOCITY: Range = 2.0-4.8 fps.

FLOW: 310 cfs. (July 18, 1961). High water level. Flow station 2 miles up from the mouth. RANGE:

AIR TEMPERATURE:

WATER TEMPERATURE:

POOLS AND RIFFLES: Very numerous deep pools, some over 10 feet deep.

K 3.6 K-1 CREEK (Lake Kulik)

RED SALMON RUNS

PERCENT OF TOTAL ESCAPEMENT: <0.01%

ESCAPEMENT RANGE: Few fish.

TIME OF OCCUPANCY: Not observed.

PEAK OF SPAWNING: Earlier than beaches, but later than most creeks.

DISTRIBUTION OF SPAWNERS: Most fish seen in riffles about 1 mile upstream.

GENERAL INFORMATION

SHELTER: FRI Lake Kulik cabin.

SURVEY ROUTES AND METHODS: Rarely surveyed.

PERSONAL-USE FISHERY: None observed.

FISH SPECIES: None observed.

WILDLIFE SPECIES: None observed.

REMARKS: Extensive areas of excellent gravel. Productive capacity very good.

K 24.6 K-7 CREEK (Lake Kulik)

LOCATION: 59°45'30" N. 158°32'48" W.

PREVIOUS NAMES OR NUMBERS: Swan Creek.

U.S.G.S. MAP: Dillingham, Alaska, 1:250,000, 1951

PHYSICAL DESCRIPTION

TOTAL LENGTH: 6.9 miles

LENGTH ACCESSIBLE TO SALMON: 6.9 miles

AVERAGE WIDTH: 12'3" RANGE: 8'-20'

AVERAGE DEPTH: 7" RANGE: 2"-14"

TOTAL ACCESSIBLE SPAWNING AREA: 10.25 acres

POTENTIAL SPAWNING AREA: 50%; 5.13 acres

BOTTOM QUALITY: 60% gravel, 40% rubble

WATERSHED: Drains east end of Lake Kulik.

GRADIENT:

WATER VELOCITY:

FLOW: RANGE:

AIR TEMPERATURE:

WATER TEMPERATURE:

POOL AND RIFFLES:

K 24.6 K-7 CREEK (Lake Kulik)

RED SALMON RUNS

PERCENT OF TOTAL ESCAPEMENT:

ESCAPEMENT RANGE:

TIME OF OCCUPANCY:

PEAK OF SPAWNING:

DISTRIBUTION OF SPAWNERS:

GENERAL INFORMATION

SHELTER: FRI Lake Kulik cabin.

SURVEY ROUTES AND METHODS: Rarely surveyed.

PERSONAL-USE FISHERY: None observed

FISH SPECIES: None observed.

WILDLIFE SPECIES: Brown bear.

REMARKS:

G 0.0 GRANT RIVER (Connecting Stream)

LOCATION: 59°46'48" N. 158°33'00" W.

PREVIOUS NAMES OR NUMBERS:

U.S.G.S. MAP: Dillingham, Alaska, 1:250,000, 1951

PHYSICAL DESCRIPTION

TOTAL LENGTH: 5.8 miles

LENGTH ACCESSIBLE TO SALMON: 4.5 miles

AVERAGE WIDTH: 65' RANGE: 45'-80'

AVERAGE DEPTH: 18" in midstream RANGE: 12"-48"

TOTAL ACCESSIBLE SPAWNING AREA: 35.44 acres

POTENTIAL SPAWNING AREA: 95%; 33.67 acres

BOTTOM QUALITY: Approximately 100% gravel. Some boulders and rubble.

WATERSHED: 52.7 square miles. Flows from Grant Lake through sloping forested area with hills to the west and flat tundra to the east. Impassable falls 4.5 miles upstream from mouth.

GRADIENT:

WATER VELOCITY: Average = 2.6 fps.
Range = 2.2-4.0 fps

FLOW: 174.2 cfs. (Aug. 31, 1960). Normal water level. Flow station 300 feet up from the mouth. RANGE:

AIR TEMPERATURE: 16.7° C. (Aug. 31, 1960)

WATER TEMPERATURE: 12.8° C. (Aug. 31, 1960)

POOLS AND RIFFLES: Numerous deep areas in the river.

G 0.0 GRANT RIVER (Connecting Stream)

RED SALMON RUNS

PERCENT OF TOTAL ESCAPEMENT: 1.06%

ESCAPEMENT RANGE: 500-40,000

TIME OF OCCUPANCY: July 25-Aug. 30

PEAK OF SPAWNING: Aug. 15

DISTRIBUTION OF SPAWNERS: Heaviest spawning in lower 1 mile but fish seen at the base of falls.

GENERAL INFORMATION

SHELTER: FRI Lake Kulik cabin.

SURVEY ROUTES AND METHODS: Ground surveys in earlier years, aerial surveys in recent years.

PERSONAL-USE FISHERY: None observed.

FISH SPECIES: None observed.

WILDLIFE SPECIES: Brown bear.

REMARKS: Extensive areas of excellent gravel.

G 0.0 GRANT RIVER (Connecting Stream)

SUMMARY OF SURVEYS

Date	Method & distance	Live	Dead	Total	Remarks
1946	T			20,000	
9/4	G 0.75			200-300	
1947	T			18,000	
8/15	G 2.5	9,270	405		
9/3	G 1.25	287	515		131 ♂, 133 ♀ measurements; 30 ♂, 30 ♀ scales
1948	T			15,000	
8/27	G 0.33	12	977		29 ♂, 77 ♀ measurements; 15 ♂, 15 ♀ scales
1949	T			500	
8/24	G	114	54		6 ♂, 17 ♀ scales and measurements
1950	T			2,000	
8/1	G 0.25			300	800-1,000 off mouth
8/4	G				26 ♂ measurements. Surveyed to forks
8/23	G 2.0	514	202		36 ♂, 100 ♀ measurements; 20 ♂, 20 ♀ scales
1951	T			6,000	
8/12	G 1.5	3,638	0		Surveyed lower area only
8/20	G	615	200		Surveyed lower area only. 100 ♂, 100 ♀ scales and measurements
1952	T			1,500	

G 0.0 GRANT RIVER (Connecting Stream)

SUMMARY OF SURVEYS

Date	Method & distance	Live	Dead	Total	Remarks
1952					
8/25	G 1.5	437	247		64 ♂, 116 ♀ measurements; 20 ♂, 20 ♀ scales
1953	T			875	
8/16	G	613	45		29 ♂, 12 ♀ measurements; 20 ♂, 12 ♂ scales
1954	T			2,591	
8/26	G 2.0			1,627	97 ♂, 124 ♀ measurements; 20 ♂, 20 ♀ scales
1955	T			30,000	
7/26	A			4,000-5,000	20,000-30,000 off mouth
8/21	G			30,000	Surveyed nearly to falls
8/24	G 1.5			9,576	113 ♂, 110 ♀ measurements; 20 ♂, 20 ♀ scales
9/5	G				20 ♂, 20 ♀ scales
1956	T			4,000	
7/22	A				2,000-3,000 off mouth
8/8	A			3,000-4,000	500 off mouth. Ten fish just below falls
8/28	A	900-1,100	3,000-4,000		None off mouth
8/28	G			2,500	None off mouth. 17 ♂, 110 ♀ measurements; 121 scales

G 0.0 GRANT RIVER (Connecting Stream)

SUMMARY OF SURVEYS

Date	Method & distance	Live	Dead	Total	Remarks
1956					
8/31	A			500	
9/16	A			0	
1957	T			1,300	
7/26	A			0	Water very low
8/8	A			750	River dammed 1.5 miles up
8/12	A			600	Fish scattered
8/15	A			700-800	All fish alive and spawning
8/20	A			1,300	No dead fish
8/27	A			1,000	Mainly spent fish. 16 ♂, 15 ♀ scales and measurements
9/6	A			0	
1958	T			4,300	
8/17	A			4,300	
8/29	A			3,200	100 ♂, 100 ♀ scales and measurements
1959	T			40,000	
7/6	A			0	
7/14	A			0	
8/16	A 4.5			40,000	None off mouth. Some fish just below falls

GRANT RIVER (Connecting Stream)

SUMMARY OF SURVEYS

Date	Method & distance	Live	Dead	Total	Remarks
1959					
8/22	G				Many dead fish. 101 ♂, 101 ♀ measurements; 60 ♂, 60 ♀ scales
8/27	A			40,000	
1960	T			20,000	
8/18	A			20,000	
8/23	G				Past peak of spawning. Many dead fish. 103 ♂, 100 ♀ measurements; 100 ♂, 100 ♀ scales; 50 ♂, 50 ♀ otoliths
1961	T			8,000	
8/16	A			8,000	
8/29	G				70 ♂, 100 ♀ scales and measurements; 52 ♂, 60 ♀ otoliths
1962	T			8,700	
8/19	A			8,700	
8/21	G				100 ♂, 100 ♀ scales, measurements, and otoliths

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